

# 2009 Bay Area HOV Lanes



Volumes, occupancies and violation rates for freeway High Occupancy Vehicle Lanes in the San Francisco Bay Area



California Department of Transportation  
District 4 Oakland  
Office of Highway Operations



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# INTRODUCTION

*The ANNUAL HOV LANE REPORT is prepared by the California Department of Transportation (Caltrans) District 4 Office of Highway Operations. This report contains information concerning High Occupancy Vehicle (HOV) lanes on the San Francisco Bay Area freeway system. Traffic performance data for mainline HOV lanes and HOV toll gates are provided for calendar year 2009. This data includes, traffic volumes, vehicle occupancies, HOV lane time savings, and HOV lane violation rates. Data for this report is collected twice annually (as resources allow) — once in the spring and once in the fall — when normal commute traffic patterns and conditions generally occur. Volumes and occupancy data for HOV bypass lanes at metered freeway on-ramps are not included in this annual report; however, general information on these ramps is included. The intent of this HOV lane monitoring report is to compile statistics and measurements of collected data. This report should not be construed to be a conclusion on the performance of HOV lanes.*

## **Major changes in 2009:**

- *A new section of HOV Lane on U.S. 101 from Mission Ave. to N. San Pedro Rd., in Marin County, opened to traffic in the southbound direction on February 2, 2009 and in the northbound direction from the 580/101 Jct. to N. San Pedro Rd. on April 24, 2009. This new section closed the gap in the HOV lane in Marin County. The limits of the HOV lane now extend from Richardson Bridge to Route 37, a distance of 14.4 miles.*
- *A new section of HOV Lane on U.S. 101 from Steele Lane to Windsor River Rd., in Sonoma County, opened to traffic in both the northbound and southbound direction on December 7, 2009. The limits of the HOV Lane now extend from Wilfred Ave. to Windsor River Road, a distance of 13.8 miles.*
- *An HOV Lane on Interstate 80, in Solano County, opened to traffic in the westbound direction on October 1, 2009 and in the eastbound direction on November 4, 2009. The limits of the HOV Lane are from Red Top Rd. to just east of Airbase Parkway, a distance of 8.2 miles.*
- *An eastbound HOV Lane on Interstate 580, in Alameda County, opened to traffic on October 2, 2009. The limits of the HOV Lane are from N. Livermore Ave. to Greenville Rd., a distance of 3.9 miles.*

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**HOV Report Website:** This report is available at [www.dot.ca.gov/dist4/](http://www.dot.ca.gov/dist4/).

**ACKNOWLEDGMENTS:** The following Caltrans personnel contributed to the preparation of this report:

LANCE HALL  
District 4 HOV Lane Coordinator

Maria L. Castro, Report Coordinator  
Adolfo Zepeda  
Roberto Fuertes  
Marvin Maltez  
Jun Magbitang  
Joseline Morales-Rabang

### **For more information, contact:**

Mr. H. DAVID SERIANI  
District Office Chief  
California Department of Transportation  
District 4, Office of Highway Operations  
P.O. Box 23660  
Oakland, CA, 94623-0660  
e-mail: David\_Seriani@dot.ca.gov



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# **HOV FACILITIES SUMMARIES**

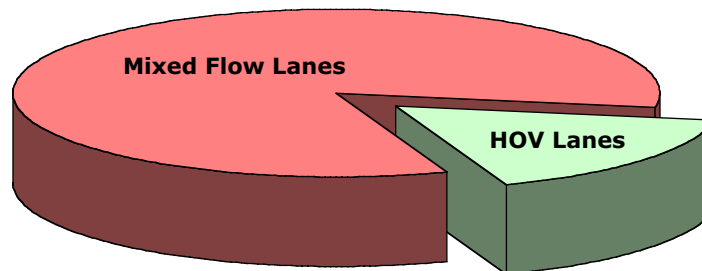
- **Comparison of HOV Lanes vs. Mixed Flow Lanes**
  - **Existing Mainline HOV Lanes**
  - **Metered On-Ramps with HOV Bypasses**
  - **Non-Metered HOV Lane On-Ramp**
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  - **Programmed HOV Lane Projects**
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-

## COMPARISON OF HOV LANES VS. MIXED FLOW LANES (Peak-Hour)

### VEHICLES

(326,672 - vehicles per hour)

83%—



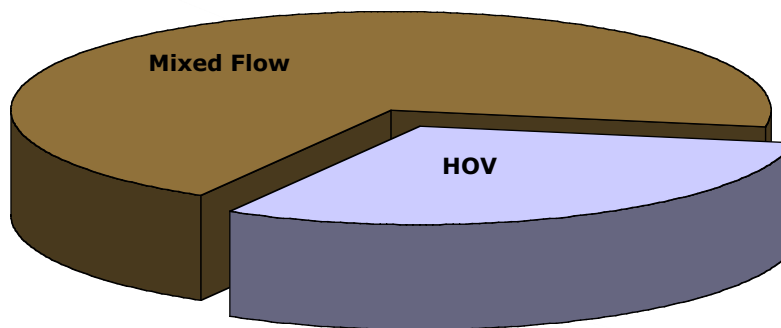
—17%

(64,696- vehicles per hour)

### PEOPLE

(363,497 - persons per hour)

69%—



—31%

(112,684 - persons per hour)

**NOTE:** Data shown is the relative proportion of vehicles or people in the mixed flow and carpool lanes averaged over all count locations.



## EXISTING MAINLINE HOV LANES

Route	Dir	Limits	Lane-miles	Min. occ.	Period of operation*	
ALA-80	W/B	Bay Bridge Toll Plaza	1.1	3+	5-10 AM	3-7 PM
ALA-80	W/B	Contra Costa Co. Line to Powell St.	4.2	3+	5-10 AM	3-7 PM
	E/B	I 880 Viaduct to Contra Costa Co. Line	5.8	3+	5-10 AM	3-7 PM
ALA-84	W/B	I-880 to Dumbarton Bridge Toll Plaza	2.8	2+	5-10 AM	3-6 PM
ALA-92	W/B	Hesperian Blvd to San Mateo Bridge Toll Plaza	2.8	2+	5-10 AM	3-6 PM
ALA-580	E/B	N. Livermore Ave to Greenville Rd	3.9	2+	5- 9 AM	3-7 PM
ALA-680	S/B	Route 84 to SCL County Line	11.7	2+	5- 9 AM	3-7 PM
ALA-880	S/B	Marina Blvd to Santa Clara Co. Line	22.5	2+	5- 9 AM	3-7 PM
	N/B	Santa Clara Co. Line to South of Rte 238 I/C	19.1	2+	5- 9 AM	3-7 PM
ALA-880	N/B	West Grand Ave to Rte 80	1.1	3+	5-10 AM	3-7 PM
ALA-880	N/B	16th Street to SFOBB Toll Plaza	1.4	3+	5-10 AM	3-7 PM
CC-04	W/B	Loveridge Road to Port Chicago Hwy	8.7	2+	5- 9 AM	
	E/B	Port Chicago Hwy to Railroad Ave.	7.3	2+		3-7 PM
CC-80	W/B	Solano Co. Line to Alameda Co. Line	14.1	3+	5-10 AM	3-7 PM
	E/B	Alameda Co. Line to Rte 4	9.5	3+	5-10 AM	3-7 PM
CC-680	N/B	Benicia-Martinez Bridge Toll Plaza	1.0	3+	5-10 AM	3-7PM
CC-680	S/B	Marina Vista to N/O N. Main St.	7.8	2+	5- 9 AM	3-7 PM
	N/B	Route 242 to Marina Vista I/C	4.4	2+	5- 9 AM	3-7 PM
CC-680	S/B	Livorna Rd to Alcosta Blvd	11.9	2+	5- 9 AM	3-7 PM
	N/B	Alcosta Blvd to Livorna Rd	12.9	2+	5- 9 AM	3-7 PM
MRN-101	S/B	Route 37 to Richardson Bridge	14.1	2+	6:30-8:30 AM	
	N/B	Richardson Bridge to Route 37	14.4	2+		4:30-7 PM
SCL-85	S/B	Rte 101 (Mountain View) to Rte 101 (So. San Jose)	23.8	2+	5- 9 AM	3-7 PM
	N/B	Rte 101 (So. San Jose) to Rte 101 (Mt. View)	24.2	2+	5- 9 AM	3-7 PM
SCL-87	SB	Route 101 I/C to Route 85 I/C	9.6	2+	5- 9 AM	3-7 PM
	NB	Route 85 I/C to Route 101 I/C	9.2	2+	5- 9 AM	3-7 PM
SCL-101	S/B	San Mateo Co. Line to Cochrane Rd	34.2	2+	5- 9 AM	3-7 PM
	N/B	Cochrane Rd to San Mateo Co. Line	34.8	2+	5- 9 AM	3-7 PM
SCL-237	W/B	Jct. Rte 880/237 to Mathilda Ave	6.1	2+	5- 9 AM	3-7 PM
	E/B	Mathilda Ave to Rte 880/237 Jct.	6.5	2+	5- 9 AM	3-7 PM
SCL-280	S/B	Magdalena Ave to Meridian Ave	10.5	2+	5- 9 AM	3-7 PM
	N/B	Leland Ave to Magdalena Ave	10.8	2+	5- 9 AM	3-7 PM
SCL-680	S/B	ALA Co. Line to Rte 237 Calaveras Blvd.	2.3	2+	5- 9 AM	3-7 PM
SCL-880	S/B	Alameda Co. Line to I-880/SR 237 Junction	2.0	2+	5- 9 AM	3-7 PM
	N/B	I-880/SR 237 Junction to Alameda Co. Line	2.0	2+	5- 9 AM	3-7 PM
SM-101	S/B	Whipple Ave to Santa Clara Co. Line	6.7	2+	5- 9 AM	3-7 PM
	N/B	Santa Clara Co. Line to Whipple Ave	6.9	2+	5- 9 AM	3-7 PM
SOL-80	W/B	Route 29 to Contra Costa Co. Line	0.9	3+	5-10 AM	3-7 PM
	E/B	Carquinez Bridge Toll Plaza	0.1	3+	5-10 AM	3-7 PM
SOL-80	W/B	East of Airbase Parkway to Red Top Rd	8.1	3+	5-10 AM	3-7 PM
	E/B	Red Top Rd to East of Airbase Parkway	8.2	3+	5-10 AM	3-7 PM
SON-101	S/B	Windsor River Road to Wilfred Avenue	13.8	2+	7- 9 AM	3-6:30 PM
	N/B	Wilfred Avenue to Windsor River Road	13.6	2+	7- 9 AM	3-6:30 PM
TOTAL EXISTING LANE-MILES			416.8			

\* **NOTE:** All HOV lanes currently operate Monday thru Friday.



## METERED ON-RAMPS with HOV BYPASS LANES

Route	Dir	Ramp	Hours	HOVL metered?	HOVL Date opened	Notes
ALA-580	EB	Airway Boulevard Loop	24 hrs	Yes	Jan 22, 2008	7 days/week
ALA-580	EB	El Charro Road diagonal	24 hrs	Yes	Nov 17, 2009	7 days/week
ALA-580	EB	El Charro Road Loop	24 hrs	Yes	Oct 7, 2009	7 days/week
ALA-580	EB	N/B Hacienda diagonal	24 hrs	Yes	Jun 30, 2003	7 days/week
ALA-580	EB	Hopyard Road Loop	24 hrs	Yes	Jun 30, 2003	7 days/week
ALA-580	EB	San Ramon/Foothill Blvd NB diago	24 hrs	Yes	Jan 22, 2008	7 days/week
ALA-580	WB	Airway Boulevard Loop	24 hrs	Yes	Sep 16, 2008	7 days/week
ALA-580	WB	Airway Boulevard Diagonal	24 hrs	Yes	Sep 16, 2008	7 days/week
ALA-580	WB	Fallon Road Loop	24 hrs	Yes	Nov 23, 2009	7 days/week
ALA-580	WB	Fallon Road Diagonal	24 hrs	Yes	Nov 23, 2009	7 days/week
ALA-580	WB	S/B Santa Rita Rd Diagonal	24 hrs	Yes	Sep 16, 2008	7 days/week
ALA-580	WB	NB Hacienda Dr. Loop	24 hrs	Yes	Sep 16, 2008	7 days/week
ALA-580	WB	SB Hacienda Dr Diagonal	24 hrs	Yes	Sep 16, 2008	7 days/week
ALA-580	WB	Hopyard Road Loop	24 hrs	Yes	Sep 16, 2008	7 days/week
ALA-580	WB	Hopyard Road Diagonal	24 hrs	Yes	Sep 16, 2008	7 days/week
ALA-580	WB	San Ramon/Foothill Blvd SB diago	24 hrs	Yes	Sep 16, 2008	7 days/week
ALA-880	NB	Dixon Landing diagonal	24 hrs	Yes	Mar 30, 2004	7 days/week
ALA-880	NB	Fremont Blvd loop	24 hrs	Yes	Oct 20, 1999	7 days/week
ALA-880	NB	Auto Mall Pkwy(Durham) loop	24 hrs	Yes	Oct 20, 1999	7 days/week
ALA-880	NB	Auto Mall Pkwy(Durham)diag	24 hrs	Yes	Oct 20, 1999	7 days/week
ALA-880	NB	Stevenson Blvd. diagonal	24 hrs	Yes	Oct 20, 1999	7 days/week
ALA-880	NB	E/B Mowry Ave loop	24 hrs	Yes	Oct 20, 1999	7 days/week
ALA-880	NB	Thornton Ave loop	24 hrs	Yes	Oct 20, 1999	7 days/week
ALA-880	NB	Thornton Ave diagonal	24 hrs	Yes	Oct 20, 1999	7 days/week
ALA-880	NB	Alvarado-Fremont Blvd diag	24 hrs	Yes	Oct 20, 1999	7 days/week
ALA-880	NB	Alvarado-Niles Rd diagonal	24 hrs	Yes	Oct 20, 1999	7 days/week
ALA-880	NB	Industrial Parkway diagonal	24 hrs	Yes	Dec 3, 1996	7 days/week
ALA-880	NB	Tennyson Rd diag	24 hrs	Yes	Dec 3, 1996	7 days/week
ALA-880	NB	West A-Street diag	24 hrs	Yes	Dec 3, 1996	7 days/week
ALA-880	NB	Lewelling Blvd diagonal	24 hrs	Yes	Apr 28, 1999	7 days/week
ALA-880	NB	98th Ave loop	24 hrs	Yes	Apr 28, 1999	7 days/week
ALA-880	NB	E/B 23rd Ave. diag	24 hrs	Yes	Apr 28, 1999	7 days/week
ALA-880	SB	Dixon Landing Loop	24hrs	Yes	Mar 30, 2004	7 days/week
ALA-880	SB	Fremont Blvd. diag	24 hrs	Yes	Oct 19, 1999	7 days/week
ALA-880	SB	Fremont Blvd. loop	24 hrs	Yes	Oct 19, 1999	7 days/week
ALA-880	SB	Auto Mall Pkwy(Durham)Diag	24 hrs	Yes	Oct 19, 1999	7 days/week
ALA-880	SB	Auto Mall Pkwy(Durham)loop	24 hrs	Yes	Oct 19, 1999	7 days/week
ALA-880	SB	W/B Mowry Ave loop	24 hrs	Yes	Oct 19, 1999	7 days/week
ALA-880	SB	Thornton Ave. diagonal	24 hrs	Yes	Oct 19, 1999	7 days/week
ALA-880	SB	Thornton Ave. loop	24 hrs	Yes	Oct 19, 1999	7 days/week
ALA-880	SB	Alvarado-Fremont Blvd diag	24 hrs	Yes	Oct 19, 1999	7 days/week

**NOTES:** (a) Minimum occupancy requirement for all HOV bypass lanes is two persons per vehicle.  
 (b) Motorcycles and inherently low-emission vehicles (ILEVs) and hybrids with DMV issued decal are permit

# METERED ON-RAMPS with HOV BYPASS LANES

Route	Dir	Ramp	Hours	HOVL metered?	HOVL Date opened	Notes
ALA-880	SB	Alvarado-Niles Rd diagonal	24 hrs	Yes	Oct 19, 1999	7 days/week
ALA-880	SB	Alvarado-Niles Rd loop	24 hrs	Yes	Oct 19, 1999	7 days/week
ALA-880	SB	Whipple Rd diag	24 hrs	Yes	Oct 29, 1996	7 days/week
ALA-880	SB	Tennyson Rd diag	24 hrs	Yes	Oct 29, 1996	7 days/week
ALA-880	SB	Winton Ave diag	24 hrs	Yes	Oct 29, 1996	7 days/week
ALA-880	SB	West A-Street diag	24 hrs	Yes	Oct 29, 1996	7 days/week
ALA-880	SB	E/B Davis St(Route 112) diag	24 hrs	Yes	Apr 27, 1999	7 days/week
ALA-880	SB	W/B Davis St(Route 112)loop	24 hrs	Yes	Apr 27, 1999	7 days/week
ALA-880	SB	98th Ave diagonal	24 hrs	Yes	Apr 27, 1999	7 days/week
ALA-880	SB	Hegenberger diagonal	24 hrs	Yes	Apr 27, 1999	7 days/week
ALA-880	SB	Oak St. diagonal	24 hrs	Yes	Apr 27, 1999	7 days/week
SCL-17	NB	Camden Ave diag	24 hrs	Yes	May 11, 2007	7 days/week
SCL-85	NB	SB Rte 101 connector	5-9am & 3-7pm	Yes	Sep 20, 2004	Monday - Friday
SCL-85	NB	SB Rte 87 connector	5-9am & 3-7pm	Yes	Jul 8, 2003	Monday - Friday
SCL-85	NB	Bernal Rd Loop	24 hrs	Yes	Sep 20, 2004	7 days/week
SCL-85	NB	Bernal Rd diag	24 hrs	Yes	Aug 26, 1994	7 days/week
SCL-85	NB	Great Oaks Blvd diag	24 hrs	Yes	Aug 19, 1994	7 days/week
SCL-85	NB	Cottle Rd diag	24 hrs	Yes	Aug 19, 1994	7 days/week
SCL-85	NB	Blossom Hill Rd loop	24 hrs	Yes	Aug 19, 1994	7 days/week
SCL-85	NB	Santa Teresa Blvd loop	24 hrs	Yes	Oct 19, 1994	7 days/week
SCL-85	NB	Almaden Expwy loop	24 hrs	Yes	Mar 19, 1999	7 days/week
SCL-85	NB	Bascom Ave diag	24 hrs	Yes	Oct 19, 1994	7 days/week
SCL-85	NB	Winchester Blvd diag	24 hrs	Yes	Nov 14, 1994	7 days/week
SCL-85	NB	Saratoga Ave diag	24 hrs	Yes	Oct 20, 1994	7 days/week
SCL-85	SB	Almaden Expwy diag	24 hrs	Yes	Oct. 19, 1994	7 days/week
SCL-85	SB	Bascom Ave diag	24 hrs	Yes	Oct. 19, 1994	7 days/week
SCL-85	SB	Camden Ave diag	24 hrs	Yes	Apr 4, 1995	7 days/week
SCL-85	SB	Stevens Creek diag	24 hrs	Yes	Oct 19, 1994	7 days/week
SCL-87	NB	Rte 85 SB Connector	24 hrs	Yes	Jan 13, 2009	7 days/week
SCL-87	NB	Curtner Ave diag	24 hrs	Yes	Mar 16, 2007	7 days/week
SCL-87	NB	Almaden Expwy diag	24 hrs	Yes	May 11, 2007	7 days/week
SCL-87	NB	Lelong St diag	24 hrs	Yes	May 11, 2007	7 days/week
SCL-87	NB	Park Avenue diag	24 hrs	Yes	Jan 13, 2009	7 days/week
SCL-87	NB	Julian St diag	24 hrs	Yes	Jan 13, 2009	7 days/week
SCL-87	NB	Taylor St. diag	24 hrs	Yes	Jan 13, 2009	7 days/week
SCL-87	NB	Skyport Blvd diag	24 hrs	Yes	Jan 13, 2009	7 days/week
SCL-87	SB	Auzerias Ave/Delma St diag	24 hrs	Yes	Apr 7, 2009	7 days/week
SCL-87	SB	EB Julian St diag	24 hrs	Yes	Apr 7, 2009	7 days/week
SCL-87	SB	Taylor St. diag	24 hrs	Yes	Apr 7, 2009	7 days/week
SCL-87	SB	Skyport Blvd diag	24 hrs	Yes	Apr 7, 2009	7 days/week

# METERED ON-RAMPS with HOV BYPASS LANES

Route	Dir	Ramp	Hours	HOVL metered?	HOVL Date opened	Notes
SCL-101	NB	Bernal Rd diagonal	24 hrs	Yes	Aug 1, 2005	7 days/week
SCL-101	NB	Blossom Hill diag	24 hrs	Yes	Jun 23, 1992	7 days/week
SCL-101	NB	Capitol Expwy diag	24 hrs	Yes	Jul 11, 1997	7 days/week
SCL-101	NB	SB Rte 680 connector	5:30-9am	Yes	Sep 2, 1982	Monday - Friday
SCL-101	NB	Guadalupe Pkwy connector	5:30-9am	Yes	Feb 12, 1980	Monday - Friday
SCL-101	NB	Trimble Rd diag	24 hrs	Yes	Nov 1, 1991	7 days/week
SCL-101	NB	San Tomas Expwy loop	5:30-9am	Yes	Feb 12, 1980	Monday - Friday
SCL-101	NB	Montague Expwy diag	24 hrs	Yes	Feb 12, 1980	7 days/week
SCL-101	NB	Lawrence Expwy (nb) loop	24 hrs	Yes	Mar 8, 1999	7 days/week
SCL-101	NB	Lawrence Expwy (sb)diag	24 hrs	Yes	Mar 8, 1999	7 days/week
SCL-101	SB	Bernal Rd diagonal	24 hrs	Yes	Aug 1, 2005	7 days/week
SCL-101	SB	Blossom Hill diag	24 hrs	Yes	Jun 23, 1992	7 days/week
SCL-101	SB	Capitol Expwy diag	24 hrs	Yes	Jul 11, 1997	7 days/week
SCL-101	SB	SB Rte 680 connector	5:30-9am	Yes	Sep 2, 1982	Monday - Friday
SCL-101	SB	Guadalupe Pkwy connector	5:30-9am	Yes	Feb 12, 1980	Monday - Friday
SCL-101	SB	Trimble Rd diag	24 hrs	Yes	Nov 1, 1991	7 days/week
SCL-101	SB	San Tomas Expwy loop	5:30-9am	Yes	Feb 12, 1980	Monday - Friday
SCL-101	SB	Montague Expwy diag	24 hrs	Yes	Feb 12, 1980	7 days/week
SCL-101	SB	Lawrence Expwy (nb) loop	24 hrs	Yes	Mar 8, 1999	7 days/week
SCL-101	SB	Lawrence Expwy (sb)diag	24 hrs	Yes	Mar 8, 1999	7 days/week
SCL-101	SB	De La Cruz Blvd. Diag	24 hrs	Yes	Nov 9, 2009	7 days/week
SCL-101	SB	Trimble Rd loop	24 hrs	Yes	Nov 9, 2009	7 days/week
SCL-101	SB	Montague Expwy diag	24 hrs	Yes	Nov 9, 2009	7 days/week
SCL-101	SB	Montague Expwy loop	24 hrs	Yes	Nov 9, 2009	7 days/week
SCL-101	SB	Bowers Ave Diag.	24 hrs	Yes	Nov 9, 2009	7 days/week
SCL-101	SB	Great America Pkwy Loop	24 hrs	Yes	Nov 9, 2009	7 days/week
SCL-101	SB	Lawrence Expwy Diag	24 hrs	Yes	Nov 9, 2009	7 days/week
SCL-101	SB	Lawrence Expwy Loop	24 hrs	Yes	Nov 9, 2009	7 days/week
SCL-101	SB	Fair Oaks Ave. Diag	24 hrs	Yes	Nov 9, 2009	7 days/week
SCL-101	SB	Fair Oaks Ave. Loop	24 hrs	Yes	Nov 9, 2009	7 days/week
SCL-101	SB	Mathilda Ave. Diag	24 hrs	Yes	Nov 9, 2009	7 days/week
SCL-101	SB	Mathilda Ave. Loop	24 hrs	Yes	Nov 9, 2009	7 days/week
SCL-101	SB	Ellis Street Diag	24 hrs	Yes	Nov 9, 2009	7 days/week
SCL-101	SB	Moffet Blvd. Diag	24 hrs	Yes	Nov 9, 2009	7 days/week
SCL-101	SB	Shoreline Blvd. Diag	24 hrs	Yes	Nov 9, 2009	7 days/week
SCL-101	SB	Rengstorff Ave. Diag	24 hrs	Yes	Nov 9, 2009	7 days/week
SCL-101	SB	Oregon Xpwy. Diag	24 hrs	Yes	Nov 9, 2009	7 days/week
SCL-101	SB	Embarcadero Ro. Loop	24 hrs	Yes	Nov 9, 2009	7 days/week
SCL-237	EB	Lawrence Expwy diag	24 hrs	Yes	Aug. 14, 1998	7 days/week
SCL-237	EB	Great America Pkwy diag	24 hrs	Yes	Sep 24, 1996	7 days/week
SCL-237	EB	N. First Street diag	24 hrs	Yes	Sep 24, 1996	7 days/week
SCL-237	EB	Zanker Rd diag	24 hrs	Yes	Sep 24, 1996	7 days/week

## METERED ON-RAMPS with HOV BYPASS LANE

Route	Dir	Ramp	Hours	HOVL metered?	HOVL Date opened	Notes
SCL-280	NB	Wolfe Rd loop	6-9 am	Yes	Jun 8, 1976	Monday - Friday
SCL-280	SB	Wolfe Rd loop	24 hrs	Yes	Apr 27, 1993	7 days/week
SCL-280	SB	Wolfe Rd diag	24 hrs	Yes	Apr 27, 1993	7 days/week
SCL-280	SB	De Anza Blvd diag	24 hrs	Yes	Apr 27, 1993	7 days/week
SCL-880	SB	SB Coleman Ave diag	24 hrs	Yes	Jul 27, 2007	7 days/week
SCL-880	SB	NB Coleman Ave loop	24hrs	Yes	Jul 27, 2007	7 days/week
SCL-880	NB	Calaveras Blv (wb) (diag)	24 hrs	Yes	Sep 9, 2003	7 days/week
SCL-880	SB	Dixon Landing diagonal	24hrs	Yes	Mar 30, 2004	7 days/week
SM-101	NB	SB Marsh Rd diag	24 hrs	Yes	Feb 27, 2007	7 days/week
SM-101	NB	SB Woodside diag	24 hrs	Yes	Feb 27, 2007	7 days/week
SM-101	NB	EB Holly St collector	24 hrs	Yes	Feb 27, 2007	7 days/week
SM-101	NB	WB Holly St diag	24 hrs	Yes	Feb 27, 2007	7 days/week
SM-101	NB	EB Ralston/Marine collector	24 hrs	Yes	Feb 27, 2007	7 days/week
SM-101	NB	WB Ralston/Marine diag	24 hrs	Yes	Feb 27, 2007	7 days/week
SM-101	NB	EB Hillsdale Blvd loop	24 hrs	No	Feb 27, 2007	7 days/week
SM-101	SB	NB Marsh Rd diag	24 hrs	Yes	Jan 30, 2007	7 days/week
SM-101	SB	NB Woodside diag	24 hrs	Yes	Jan 30, 2007	7 days/week
SM-101	SB	EB Whipple Ave diag	24 hrs	Yes	Jan 30, 2007	7 days/week
SM-101	SB	Ralston-Harbor collector	24 hrs	Yes	Jan 30, 2007	7 days/week
SM-280	NB	Westborough Blvd. Diag	24 hrs	Yes	Oct 21, 2008	7 days/week

## NON-METERED HOV LANE ON-RAMP

Route	Dir	Ramp	Hours	HOVL metered?	HOVL Date opened	Notes
SF-80	EB	Sterling St on-ramp to SFOBB	3:30-7:00 PM	No	Aug 30, 1982	

### NOTES

- (a) *Minimum occupancy requirement is 3 or more persons per vehicle.*
- (b) *2 - seater vehicles with 2 persons, motorcycles, trucks and inherently low-emission vehicles (ILEVs) and hybrids with DMV issued decal are permitted.*

## MAINLINE HOV LANES UNDER CONSTRUCTION

Estimated Opening	County Route	Location	Lane Miles	Min. Occ.
2011	CC-80	West of Rte 4 to Carquinez Bridge (EB)	4.7	3+
Nov-10	ALA-580	Hacienda to East of N. Livermore Ave (EB)	6.4	2+

**TOTAL LANE-MILES UNDER CONSTRUCTION      11.1**

## PROGRAMMED HOVL PROJECTS (From STIP)

County Route	EA	Location	Construct year	Cost Est. (Prog. year)	Lane Miles
ALA-880	3A920K	Hegenberger Rd. to Marina Blvd. (SB)	2014	\$86,500,000	2.9
ALA-580	290820	W of Hacienda to Greenville Rd. (WB)	2013	\$114,800,000	10.3
CC-4	228500	Loveridge to Somersville	2013	\$77,400,000	4.2
CC-4	228511	Somersville to SR 160	2014	\$350,000,000	7.2
MRN-101	264060	Route 37 to Altherton Ave	2013	\$54,700,000	5.5
SCL-101	4A3300	Shoreline Blvd to Matadero Cr	2013	\$80,500,000	5.4
SCL/ALA-680	286000	Rte 237 to Rte 84 (NB)	2017	\$80,000,000	13.0
SCL-880	298300	US 101 to SR 237	2013	\$73,500,000	8.6
SON-101	129650	Rohnert Park Expwy to Wilfred Ave	2013	\$65,100,000	3.2

<b>TOTAL</b>	<b>\$982,500,000</b>	<b>60.3</b>
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## PROGRAMMED HOVL PROJECTS (Locally Funded)

County Route	EA	Location	Construct year	Cost (Prog. Year)	Lane Miles
SON-101	0A1831	Corona Rd. to Pepper Road	2012	\$47,800,000	4.0
SON-101	0A18U1	Pepper Rd to Rohnert Park Expwy	2011	\$95,300,000	10.0

<b>TOTAL</b>	<b>\$143,100,000</b>	<b>14.0</b>
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## PROPOSED HOVL PROJECTS (Not Programmed)

County Route	EA	Location	Post-Mile	Cost (Prog. year)	Lane Miles
ALA/SON-101		Atherton Avenue to Rte 116	21.7/3.8	\$150,000,000	20.1
CC-680	0A610K	NB from North Main to Route 242	15.0/18.7	\$230,000,000	3.7
CC-680	3A580K	SB from North Main St to Livorna Rd	11.9/16.3	\$80,000,000	4.5
SOL-80	4A440K	Magazine St. to SR 37	0.8/5.6	\$60,000,000	7.7
SON-101	2640F0	Lakeville (SR 116) to Corona Rd	3.8/6.9	\$63,000,000	6.2
TOTAL				\$583,000,000	42.2



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## **DATA SUMMARIES**

- **HOV Lane Peak Hour Volumes**
  - **HOV & Non-HOV Lane Peak Hour Comparisons**
  - **HOV Lane Peak Period Violation Rates**
  - **HOV Lane Peak Hour Time Savings and  
Average Speeds**
-

# HOV LANE PEAK HOUR VOLUMES

			A.M. Peak Hr (veh)	P.M. Peak Hr (veh)
ALA-80	WB	Bay Bridge Toll Plaza	3694	937
ALA-80	WB	Contra Costa Co. Line to Powell St	1668	N/A
	EB	I 880 Viaduct to Contra Costa Co. Line	N/A	1123
ALA-80	WB	HOV FLYOVER	1445	495
ALA-84	WB	I-880 to Dumbarton Bridge Toll Plaza	1196	375
ALA-92	WB	Hesperian Blvd to San Mateo Bridge Toll Plaza	1050	475
ALA-580	EB	N. Livermore Ave to Greenville Rd	N/A	524
ALA-680	SB	Route 84 to ALA/SCL Co. Line	1090	315
ALA-880	SB	Marina Blvd to Whipple Road	1276	1002
		Whipple Road to SCL County Line	784	1070
	NB	SCL County Line to Whipple Road	424	1077
		Whipple Road to South of Rte 238 I/C	1182	1363
ALA-880	NB	16th St to SFOBB Toll Plaza	856	N/A
CC-04	WB	Loveridge Road to Port Chicago Hwy	1038	**
	EB	Port Chicago Hwy to Railroad Ave.	**	1002
CC-80	WB	Solano Co. Line to Route 4	901	N/A
		Route 4 to Alameda Co. Line	1262	N/A
	EB	Alameda Co. Line to Route 4	N/A	1006
CC-680	N/B	Benicia-Martinez Bridge Toll Plaza	119	276
CC-680	SB	Marina Vista I/C to N/O North Main St	N/A	396
	NB	Route 242 to Marina Vista I/C	172	1129
CC-680	SB	Livorna Rd. to Alcosta Blvd.	853	694
	NB	Alcosta Blvd. to Livorna Rd.	1018	1034
MRN-101	SB	Route 37 to Mission Avenue	663	**
		Mission Avenue to Richardson Bridge	615	**
	NB	Richardson Bridge to Mission Avenue	**	1010
		Mission Avenue to Route 37	**	961
SCL-85	SB	Rte 101 (Mountain View) to Rte 280	N/A	1095
		Rte 280 to Almaden Expwy	N/A	1202
		Almaden Expwy to Rte 101 (So. San Jose)	N/A	824
	NB	Rte 101 (So. San Jose) to Almaden Expwy	640	N/A
		Almaden Expwy to Rte 280	1118	N/A
		Rte 280 to Rte 101 (Mountain View)	947	N/A
SCL-87	SB	Route 101 I/C to Route 280 I/C	N/A	721
		Route 280 I/C to Route 85/87 Jct	N/A	635
	NB	Route 85/87 Jct to Route 280 I/C	1311	N/A
		Route 280 I/C to Route 101 I/C	723	N/A

# HOV LANE PEAK HOUR VOLUMES

			<b>A.M.</b>	<b>P.M.</b>
			Peak Hr (veh)	Peak Hr (veh)
<b>SCL-101</b>	SB	San Mateo Co. Line to Ellis St	1036	1142
		Ellis St to Guadalupe Pkwy	N/A	1021
		Guadalupe Pkwy to 101/280/680 I/C	N/A	897
		101/280/680 I/C to Bernal Rd	N/A	652
		Bernal Rd to Cochrane Rd	N/A	840
	NB	Cochrane Road to Bernal Road	943	N/A
		Bernal Rd to 101/280/680 I/C	734	N/A
		101/280/680 I/C to Guadalupe Pkwy	1230	N/A
		Guadalupe Pkwy to Ellis St	967	N/A
		Ellis St to San Mateo Co. Line	895	791
<b>SCL-237</b>	WB	Rte 880/237 Jct to Mathilda Ave	936	518
	EB	Mathilda Ave to Rte 880/237 Jct.	N/A	669
<b>SCL-280</b>	SB	Magdalena Ave to Leland Ave	N/A	1003
	NB	Leland Ave to Magdalena Ave	651	N/A
<b>SCL-680</b>	SB	ALA/SCL Co. Line to Route 237	501	303
<b>SCL-880</b>	SB	Alameda Co. Line to I 880/SR237 Junction	~	~
	NB	I 880/SR237 Junction to Alameda Co. Line	~	~
<b>SM-101</b>	SB	Whipple Ave to Santa Clara Co. Line	613	897
	NB	Santa Clara Co. Line to Whipple Ave	1125	785
<b>SOL-80</b>	WB	Route 29 to Contra Costa County Line	N/A	N/A
	EB	Carquinez Bridge Toll Plaza	N/A	929
<b>SOL-80</b>	WB	East of Airbase Parkway to Red Top Rd	N/A	N/A
	EB	Red Top Rd to East of Airbase Parkway	N/A	N/A
<b>SON-101</b>	SB	Windsor River Road to Wilfred Avenue	347	821
	NB	Wilfred Avenue to Windsor River Road	369	688

N/A : Due to Resource shortfall 2009 data is not available.

\*\* HOVL not in operation during this Peak Period.

~ Data Collection location not available within these limits

# PEAK HOUR HOV & non-HOV LANE COMPARISONS

				% of all vehicles		% of all Persons			
				in HOVL	in Non-HOVL	in HOVL	in Non-HOVL	Number of Non-HOV Lanes	in Non-HOVL (Avg per Lane)
ALA-80	WB	Bay Bridge Toll Plaza	AM	* 40%	** 60%	* 66%	** 34%	18	2%
			PM	* 12%	** 88%	* 31%	** 69%	18	4%
ALA-80	WB	Contra Costa Co. Line to Powell Street	AM	19%	81%	36%	64%	4	16%
			PM	N/A	N/A	N/A	N/A	4	N/A
	EB	I 880 Viaduct to Contra Costa Co. Line	AM	N/A	N/A	N/A	N/A	4	N/A
			PM	15%	85%	36%	64%	4	16%
ALA-84	WB	I-880 to Dumbarton Bridge Toll Plaza	AM	25%	75%	44%	56%	3	19%
			PM	N/A	N/A	N/A	N/A	3	N/A
ALA-92	WB	Hesperian Blvd to San Mateo Bridge Toll Plaza	AM	22%	78%	37%	63%	3	21%
			PM	N/A	N/A	N/A	N/A	3	N/A
ALA-580	EB	N. Livermore Ave to Greenville Rd	AM	N/A	N/A	N/A	N/A	3	N/A
			PM	10%	90%	18%	82%	3	27%
ALA-680	SB	Route 84 to ALA/SCL Co. Line	AM	16%	84%	27%	73%	3	24%
			PM	16%	84%	27%	73%	3	24%
ALA-880	SB	Marina Blvd to Whipple Rd	AM	22%	78%	34%	66%	3	22%
			PM	17%	83%	33%	67%	3	22%
		Whipple Rd to Santa Clara Co. Line	AM	12%	88%	24%	76%	3	25%
			PM	21%	79%	32%	68%	3	23%
	NB	Santa Clara Co. Line to Whipple Rd	AM	11%	89%	18%	82%	3	27%
			PM	19%	81%	33%	67%	3	22%
		Whipple Rd to South of Rte 238 I/C	AM	23%	77%	40%	60%	3	20%
			PM	25%	75%	42%	58%	3	19%
ALA-880	NB	16th Street to SFOBB	AM	53%	47%	79%	21%	2	11%
			PM	N/A	N/A	N/A	N/A	2	N/A
CC-04	WB	Loveridge Road to Port Chicago Hwy	AM	18%	82%	29%	71%	3	24%
	EB	Port Chicago to Railroad Avenue	PM	15%	85%	26%	74%	3	25%
CC-80	WB	Solano Co. Line to Route 4	AM	25%	75%	46%	54%	3	18%
			PM	N/A	N/A	N/A	N/A	3	N/A
		Route 4 to Alameda Co. Line	AM	20%	80%	44%	56%	3	19%
			PM	N/A	N/A	N/A	N/A	3	N/A
	EB	Alameda Co. Line to Route 4	AM	N/A	N/A	N/A	N/A	3	N/A
			PM	18%	82%	41%	59%	3	20%
CC-680	NB	Benicia-Martinez Bridge Toll Plaza EB	AM	4%	96%	9%	91%	11	8%
			PM	6%	94%	14%	86%	11	8%
CC-680	SB	Marina Vista I/C to N/O North Main St	AM	N/A	N/A	N/A	N/A	5	N/A
			PM	5%	95%	9%	91%	5	18%
	NB	Route 242 to Marina Vista I/C	AM	6%	94%	14%	86%	4	22%
			PM	23%	77%	37%	63%	4	16%
CC-680	SB	Livorna Rd to Alcosta Blvd	AM	14%	86%	25%	75%	3	25%
			PM	12%	88%	24%	76%	3	25%
	SB	Alcosta Blvd to Livorna Rd	AM	17%	83%	29%	71%	3	24%
			PM	17%	83%	31%	69%	3	23%
MRN-101	SB	Route 37 to Mission Avenue	AM	13%	87%	38%	62%	3	21%
		Mission Avenue to Richardson Bridge	AM	13%	87%	29%	71%	3	24%
	NB	Richardson Bridge to Mission Avenue	PM	15%	85%	31%	69%	3	23%
		Mission Avenue to Route 37	PM	16%	84%	31%	69%	3	23%
SCL-85	SB	Rte 101 (Mtn View) to Rte 280	AM	N/A	N/A	N/A	N/A	2	N/A
			PM	22%	78%	35%	65%	2	32%
		Rte 280 to Almaden Expwy	AM	N/A	N/A	N/A	N/A	2	N/A
			PM	23%	77%	37%	63%	2	31%
		Almaden Expwy to Rte 101 (So. San Jose)	AM	N/A	N/A	N/A	N/A	2	N/A
			PM	19%	81%	29%	71%	2	35%
	NB	Rte 101 (So. San Jose) to Almaden Expwy	AM	16%	84%	24%	76%	2	38%
			PM	N/A	N/A	N/A	N/A	2	N/A
		Almaden Expwy to Rte 280	AM	28%	72%	42%	58%	2	29%
			PM	N/A	N/A	N/A	N/A	2	N/A
		Rte 280 to Rte 101 (Mtn View)	AM	20%	80%	34%	66%	2	33%
			PM	N/A	N/A	N/A	N/A	2	N/A

# PEAK HOUR HOV & non-HOV LANE COMPARISONS

				% of all vehicles		% of all Persons			
				in HOVL	in Non-HOVL	in HOVL	in Non-HOVL	Number of Non-HOV Lanes	in Non-HOVL (Avg per Lane)
<b>SCL-87</b>	SB	Route 101 I/C to Route 280 I/C	AM	N/A	N/A	N/A	N/A	2	N/A
			PM	19%	81%	31%	71%	2	36%
	NB	Route 280 I/C to Route 85/87 Jct	AM	N/A	N/A	N/A	N/A	2	N/A
			PM	13%	87%	21%	79%	2	40%
		Route 85/87 Jct to Route 280 I/C	AM	26%	74%	41%	59%	2	30%
			PM	N/A	N/A	N/A	N/A	2	N/A
<b>SCL-101</b>	SB	San Mateo Co. Line to Ellis St	AM	17%	83%	34%	66%	3	22%
			PM	18%	82%	29%	71%	3	24%
		Ellis St to Guadalupe Pkwy	AM	N/A	N/A	N/A	N/A	3	N/A
			PM	20%	80%	34%	66%	3	22%
		Guadalupe Pkwy to 101/280/680 I/C	AM	N/A	N/A	N/A	N/A	3	N/A
			PM	15%	85%	25%	75%	3	25%
	NB	101/280/680 I/C to Bernal Rd	AM	N/A	N/A	N/A	N/A	3	N/A
			PM	13%	87%	22%	78%	3	26%
		Bernal Rd to Cochrane Rd	AM	N/A	N/A	N/A	N/A	3	N/A
			PM	15%	85%	25%	75%	3	25%
		Cochrane Rd to Bernal Road	AM	16%	84%	28%	72%	3	24%
			PM	N/A	N/A	N/A	N/A	3	N/A
		Bernal Rd to 101/280/680 I/C	AM	13%	87%	23%	77%	3	26%
			PM	N/A	N/A	N/A	N/A	3	N/A
		101/280/680 I/C to Guadalupe Pkwy	AM	16%	84%	28%	72%	3	24%
			PM	N/A	N/A	N/A	N/A	3	N/A
		Guadalupe Pkwy to Ellis St	AM	17%	83%	28%	72%	3	24%
			PM	N/A	N/A	N/A	N/A	3	N/A
		Ellis St to San Mateo Co. Line	AM	13%	87%	22%	78%	3	26%
			PM	13%	87%	23%	77%	3	26%
<b>SCL-237</b>	WB	880/237 Jct to Mathilda Ave	AM	19%	81%	35%	65%	2	32%
			PM	13%	87%	21%	79%	2	39%
	EB	Mathilda Ave to Rte 880/237 Jct	AM	N/A	N/A	N/A	N/A	2	N/A
			PM	15%	85%	27%	73%	2	36%
<b>SCL-280</b>	SB	Magdalena Ave to Leland Ave	AM	N/A	N/A	N/A	N/A	3	N/A
			PM	17%	83%	32%	68%	3	23%
	NB	Leland Ave to Magdalena Ave	AM	11%	89%	18%	82%	3	27%
			PM	N/A	N/A	N/A	N/A	3	N/A
<b>SCL-680</b>	SB	SCL/ALA Co. Line to Route 237	AM	11%	89%	18%	82%	3	27%
			PM	7%	93%	11%	89%	3	30%
<b>SCL-880</b>	SB	Alameda Co. Line to I 880/SR237 Jct	AM	~	~	~	~	3	~
			PM	~	~	~	~	3	~
	NB	I 880/SR237 Jct to Alameda Co. Line	AM	~	~	~	~	3	~
			PM	~	~	~	~	3	~
<b>SM-101</b>	SB	Whipple Ave to Santa Clara Co. Line	AM	10%	90%	19%	81%	3	27%
			PM	14%	86%	24%	76%	3	25%
	NB	Santa Clara Co. Line to Whipple Ave	AM	23%	77%	36%	64%	3	21%
			PM	15%	85%	28%	72%	3	24%
<b>SOL-80</b>	WB	Route 29 to Contra Costa Co. Line	AM	N/A	N/A	N/A	N/A	3	N/A
			PM	N/A	N/A	N/A	N/A	3	N/A
	EB	Carquinez Bridge Toll Plaza	AM	N/A	N/A	N/A	N/A	11	N/A
			PM	19%	81%	39%	61%	11	6%
<b>SOL-80</b>	WB	East of Airbase Pkwy to Red Top Rd	AM	N/A	N/A	N/A	N/A	4	N/A
			PM	N/A	N/A	N/A	N/A	4	N/A
	EB	Red Top Rd to East of Airbase Pkwy	AM	N/A	N/A	N/A	N/A	4	N/A
			PM	N/A	N/A	N/A	N/A	4	N/A
<b>SON-101</b>	SB	Windsor River Rd to Wilfred Avenue	AM	10%	90%	17%	83%	2	42%
			PM	19%	81%	26%	74%	2	37%
	NB	Wilfred Avenue to Windsor River Rd.	AM	10%	90%	17%	83%	2	42%
			PM	13%	87%	23%	77%	2	39%

\* Total in all 4 HOVL's combined.

\*\* Total in all 18 Non HOVL's combined.

~ Data collection location not available within these limits.

N/A : Due to Resource shortfall 2009 data is not available.

## HOV LANE PEAK PERIOD VIOLATION RATE SUMMARY

			A.M.	P.M.
ALA-80	WB	Bay Bridge Toll Plaza	11.7%	10.8%
ALA-80	WB	Contra Costa Co. Line to Powell St	6.3%	N/A
	EB	I 880 Viaduct to Contra Costa Co. Line	N/A	4.2%
ALA-80	WB	HOV FLYOVER RAMP	13.7%	11.5%
ALA-84	WB	I-880 to Dumbarton Bridge Toll Plaza	0.0%	0.5%
ALA-92	WB	Hesperian Blvd to San Mateo Bridge Toll Plaza	1.0%	1.5%
ALA-580	EB	N. Livermore Ave to Greenville Road	N/A	2.7%
ALA-680	SB	Route 84 to SCL/ALA Co. Line	0.3%	5.7%
ALA-880	SB	Marina Blvd to Whipple Road	5.9%	1.2%
		Whipple Road to Santa Clara Co. Line	0.0%	6.2%
	NB	Santa Clara Co. Line to Whipple Road	2.4%	1.9%
		Whipple Road to South of Rte 238 I/C	1.1%	3.3%
ALA-880	NB	16th St to SFOBB Toll Plaza	11.1%	N/A
CC-04	WB	Loveridge Road to Port Chicago Hwy.	2.7%	**
	EB	Port Chicago Hwy to Railroad Ave	**	2.5%
CC-80	WB	Solano Co. Line to Route 4	6.9%	N/A
		Route 4 to Alameda Co. Line	6.9%	N/A
	EB	Alameda Co. Line to Rte 4	N/A	9.4%
CC-680	NB	Benicia-Martinez Bridge Toll Plaza	61.4%	22.0%
CC-680	SB	Marina Vista to N/O North Main St.	1.8%	0.8%
	NB	Route 242 to Marina Vista I/C	0.0%	1.6%
CC-680	SB	Livorna Rd. to Alcosta Blvd.	4.7%	2.0%
	NB	Alcosta Blvd. to Livorna Rd.	0.3%	1.4%
MRN-101	SB	Route 37 to Mission Avenue	1.5%	**
		Mission Avenue to Richardson Bridge	2.1%	**
	NB	Richardson Bridge to Mission Avenue	**	1.1%
		Mission Avenue to Route 37	**	1.3%
SCL-85	SB	Rte 101 (Mountain View) to Rte 280	N/A	1.9%
		Rte 280 to Almaden Expwy	N/A	1.2%
		Almaden Expwy to Rte 101 (So. San Jose)	N/A	0.8%
	NB	Rte 101 (So. San Jose) to Almaden Expwy	1.6%	N/A
		Almaden Expwy to Rte 280	2.5%	N/A
		Rte 280 to Rte 101 (Mountain View)	1.8%	N/A
SCL-87	SB	Route 101 I/C to Route 280	N/A	2.5%
		Route 280 to Route 85/87 Jct	N/A	1.5%
	NB	Route 85/87 Jct to Route 280	1.8%	N/A
		Route 280 to Route 101 I/C	0.4%	N/A
SCL-101	SB	San Mateo Co. Line to Ellis St	4.0%	0.5%
		Ellis St to Guadalupe Pkwy	N/A	0.2%
		Guadalupe Pkwy to 101/280/680 I/C	N/A	1.1%
		101/280/680 I/C to Bernal Rd	N/A	1.1%
		Bernal Rd to Cochrane Road	N/A	1.3%

## HOV LANE PEAK PERIOD VIOLATION RATE SUMMARY

			A.M.	P.M.
	NB	Cochrane Rd to Bernal Rd	0.7%	N/A
		Bernal Rd to 101/280/680 I/C	0.5%	N/A
		101/280/680 I/C to Guadalupe Pkwy	0.3%	N/A
		Guadalupe Pkwy to Ellis St	2.8%	N/A
		Ellis St to San Mateo Co. Line	0.3%	1.0%
<b>SCL-237</b>	WB	880/237 Jct to Mathilda Ave	2.9%	1.2%
	EB	Mathilda Ave to Rte 880/237 Jct.	N/A	1.4%
<b>SCL-280</b>	SB	Magdalena Ave to Leland Ave	N/A	0.5%
	NB	Leland Ave to Magdalena Ave	0.5%	N/A
<b>SCL-680</b>	SB	SCL/ALA Co. Line to Route 237	4.1%	1.0%
<b>SCL-880</b>	SB	Alameda Co. Line to I 880/SR237 Jct	~	~
	NB	I 880/SR237 Jct to Alameda Co. Line	~	~
<b>SM-101</b>	SB	Whipple Ave to Santa Clara Co. Line	0.8%	8.5%
	NB	Santa Clara Co. Line to Whipple Ave	0.3%	0.5%
<b>SOL-80</b>	WB	Route 29 to Contra Costa Co. Line	N/A	N/A
	EB	Carquinez Bridge Toll Plaza	N/A	12.9%
<b>SOL-80</b>	WB	East of Airbase Pkwy to Red Top Rd	N/A	N/A
	EB	Red Top Rd to East of Airbase Pkwy	N/A	N/A
<b>SON-101</b>	SB	Windsor River Road to Wilfred Avenue	4.4%	1.0%
	NB	Wilfred Avenue to Windsor River Road	4.0%	1.2.%

N/A: Due to Resource shortfall 2009 data is not available.

~ Data collection location not available within these limits.

\*\* HOV not in operation during this Peak Period



# HOV LANE PEAK HOUR TIME SAVINGS AND AVERAGE SPEEDS

				Travel Time (minutes)	Travel Time (minutes)	HOVL Time Saving (minutes)	Avg. Speed (mph)	Avg. Speed (mph)
				Non-HOVL	HOVL		Non-HOVL	HOVL
<b>ALA-80</b>	WB	Bay Bridge Toll Plaza	AM	34	21	13	2	3
			PM	5	1	4	13	65
<b>ALA-80</b>	WB	Contra Costa Co. Line to Powell St	AM	10	6	4	25	42
			PM	4	4	0	63	65
	EB	I 880 Viaduct to Contra Costa Co. Line	AM	5	5	0	65	65
			PM	17	8	9	20	44
<b>ALA-80</b>	WB	HOV FLYOVER RAMP	AM	4	3	1	14	18
			PM	1	1	0	55	55
<b>ALA-84</b>	WB	I-880 to Dumbarton Bridge Toll Plaza	AM	4	2	2	38	65
			PM	3	2	1	54	65
<b>ALA-92</b>	WB	Hesperian Blvd to San Mateo Bridge Toll Plaza	AM	3	2	0	57	65
			PM	3	2	0	57	65
<b>ALA-580</b>	EB	N. Livermore Ave to Greenville Rd	AM	5	5	0	64	65
			PM	5	5	0	64	65
<b>ALA-680</b>	SB	Route 84 to ALA/SCL Co. Line	AM	22	12	10	36	65
			PM	13	12	1	61	65
<b>ALA-880</b>	SB	Marina Blvd. to Whipple Road	AM	24	8	16	22	65
			PM	13	8	5	42	65
		Whipple Road to Santa Clara Co. Line	AM	27	12	15	30	65
			PM	15	12	3	53	65
	NB	Santa Clara Co. Line to Whipple Road	AM	18	12	6	45	65
			PM	28	12	16	29	65
		Whipple Road to South of Rte 238 I/C	AM	12	5	7	27	65
			PM	13	5	8	25	65
<b>ALA-880</b>	NB	16th St to SFOBB Toll Plaza	AM	20	2	18	5	50
			PM	3	2	1	36	50
<b>CC-04</b>	WB	Loveridge Rd. to Port Chicago Hwy	AM	13	7	6	34	65
	EB	Port Chicago Hwy to West of Railroad Ave.	PM	21	7	14	22	65
<b>CC-80</b>	WB	Solano Co. Line to Route 4	AM	5	4	1	52	65
			PM	4	4	0	65	65
		Route 4 to Alameda Co. Line	AM	31	17	14	19	34
			PM	9	9	0	65	65
	EB	Alameda Co. Line to Rte 4	AM	9	9	0	65	65
			PM	33	14	19	17	41
<b>CC-680</b>	NB	N/O Marina Vista I/C to Benicia Bridge Toll Plaza	AM	4	1	3	8	65
			PM	5	1	4	7	65
<b>CC-680</b>	SB	Marina Vista I/C to N/O North Main St	AM	14	7	7	33	65
			PM	7	7	0	63	65
	NB	Route 242 to Marina Vista	AM	4	4	0	64	65
			PM	6	4	2	48	65
<b>CC-680</b>	SB	Livorna Rd to Alcosta Blvd	AM	14	10	4	48	65
			PM	12	10	2	53	65
	NB	Alcosta Blvd to Livorna Rd	AM	21	16	5	49	65
			PM	22	16	6	46	65
<b>MRN-101</b>	SB	Rte 37 to Mission Ave.	AM	20	10	10	23	46
		Mission Ave. to Richardson Bridge	AM	7	7	0	55	55
	NB	Richardson Bridge to Mission Ave.	PM	12	8	4	37	55
		Mission Ave. to Rte 37	PM	8	7	1	53	61
<b>SCL-85</b>	SB	Rte 101 (Mtn View) to Rte 280	AM	6	5	1	57	65
			PM	21	5	16	16	65
		Rte 280 to Almaden Expwy	AM	11	11	0	65	65
			PM	21	13	8	34	55
		Almaden Expwy to Rte 101 (So. San Jose)	AM	6	6	0	65	65
			PM	7	6	1	55	65
	NB	Rte 101 (So. San Jose) to Almaden Expwy	AM	21	6	15	18	65
			PM	6	6	0	65	65
		Almaden Expwy to Rte 280	AM	21	11	10	36	65
			PM	12	12	0	65	65
		Rte 280 to Rte 101 (Mtn View)	AM	19	5	14	17	65
			PM	6	5	1	54	65

# HOV LANE PEAK HOUR TIME SAVINGS AND AVERAGE SPEEDS

				Travel Time (minutes) Non-HOVL	Travel Time (minutes) HOVL	HOVL Time Saving (minutes)	Avg. Speed (mph) Non-HOVL	Avg. Speed (mph) HOVL	
SCL-87	SB	Route 101 I/C to Route 280 I/C	AM	6	5	1	49	55	
			PM	14	5	9	21	55	
	NB	Route 280 I/C to Route 85/87 Jct	AM	6	4	2	47	65	
			PM	16	4	12	18	65	
		Route 85/87 Jct to Route 280 I/C	AM	11	6	5	35	65	
			PM	6	6	0	65	65	
Route 280 I/C to Route 101 I/C		AM	16	3	13	13	65		
		PM	5	3	2	40	65		
SCL-101	SB	San Mateo Co. Line to Ellis St	AM	6	5	1	51	65	
			PM	9	7	2	34	44	
		Ellis St to Guadalupe Pkwy	AM	7	6	1	61	65	
			PM	24	6	18	17	65	
		Guadalupe Pkwy to 101/280/680 I/C	AM	6	5	1	58	65	
			PM	18	8	10	19	44	
	NB	101/280/680 I/C to Bernal Rd	AM	7	7	0	65	65	
			PM	10	7	3	46	65	
		Bernal Rd to Cochrane Road	AM	9	8	1	61	65	
			PM	9	8	1	60	65	
		NB	Cochrane Road to Bernal Road	AM	9	9	0	65	65
				PM	9	9	0	65	65
	Bernal Rd to 101/280/680 I/C		AM	12	8	4	41	65	
			PM	8	8	0	63	65	
	101/280/680 I/C to Guadalupe Pkwy		AM	7	6	1	43	50	
			PM	5	5	0	65	65	
	Guadalupe Pkwy to Ellis Street	AM	11	7	4	40	65		
		PM	13	7	6	34	62		
	Ellis to San Mateo Co. Line	AM	11	5	6	27	65		
		PM	13	9	4	23	33		
	SCL-237	WB	McCarthy Blvd to Mathilda Ave	AM	17	6	11	22	65
				PM	24	6	18	15	65
EB		Mathilda Ave to Rte 880/237 Jct.	AM	9	6	3	43	65	
			PM	24	6	18	16	65	
SCL-280	SB	Magdalena Ave to Leland Ave	AM	10	10	0	63	65	
			PM	25	10	15	25	65	
	NB	Leland Ave to Magdalena Ave	AM	19	10	9	34	65	
			PM	13	10	3	50	65	
SCL-680	SB	ALA/SCL Co. Line to Rte 237	AM	2	1	1	54	65	
			PM	2	1	1	65	65	
SCL-880	SB	Alameda Co. Line to I-880/SR 237 Jct	AM	1	1	0	54	65	
			PM	1	1	0	65	65	
	NB	I-880/SR 237 Jct to Alameda Co. Line	AM	2	2	0	60	65	
			PM	5	2	3	21	65	
SM-101	SB	Whipple Ave to Santa Clara Co. Line	AM	21	6	15	20	65	
			PM	17	6	11	24	65	
	NB	Santa Clara Co. Line to Whipple Ave	AM	16	6	10	25	65	
			PM	7	6	1	57	65	
SOL-80	WB	Route 29 to Contra Costa Co. Line	AM	1	1	0	65	65	
			PM	1	1	0	65	65	
	EB	Carquinez Bridge Toll Plaza	AM	1	1	0	65	65	
			PM	1	1	0	65	65	
SON-101	SB	Windsor Road to Wilfred Avenue*	AM	6	6	0	65	65	
			PM	14	6	8	28	65	
	NB	Wilfred Ave to Windsor Road*	AM	8	6	2	49	65	
			PM	13	6	7	30	65	
Overall Average Speed							42.5	61.4	

\*NOTE: Travel time data was collected prior to the extension of the HOV Lane to Windsor Road and is only reported for the section between Steel Lane and Wilfred Avenue.

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# **GENERAL FACILITY INFORMATION**

- **Mainline HOV Lanes**
  - **Toll Bridge HOV Bypass Lanes**
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# MAINLINE HOV LANES

## ALA-80: San Francisco-Oakland Bay Bridge Toll Plaza

OCCUPANCY	Three or more persons per vehicle, motorcycles, 2-seat vehicles with 2 persons, inherently low-emission vehicles (ILEVs) with DMV issued decal.		
WESTBOUND	HOURS:	5:00 - 10:00 AM, 3:00 - 7:00 PM, Monday thru Friday	
	LIMITS:	Lane 1:	Route 880 left side HOV ramp to metering signals Length = 0.4 mile
		Lane 2:	Route 580 connector to metering signals Length = 1.1 miles
		Lane 21:	Route 880 right side HOV ramp to metering signals Length = 0.6 mile
		Lane 22:	HOV slip ramp to metering signals Length = 0.8 miles
	DATES:	Apr 17, 1970	Opened; Buses only
		Dec 8, 1971	Carpools permitted; min. occ. three persons per vehicle
		Feb 2, 1979	Buses only in lane 17; 6:30-8:30, Mon-Fri-only lane on W. Grand Ave, approached from Maritime on-ramp to toll plaza; temporary measure in response to BART tube closure
		Apr 17, 1979	Bus-only in lane 17 & W. Grand Ave approach made permanent; W. Grand Ave slip ramp designated for buses only; hours of operation changed to 6:00-9:00 AM, Mon-Fri; lane 8 reverted to mixed flow; carpools permitted to use lane 10 during AM peak
		Oct 12, 1981	Opened; lanes 18 & 19; buses only, 24 hours/day, 7 days/week; carpools permitted, 6:00-9:00 AM, Mon-Fri; lane 17 reverted to mixed flow
		Jul 18, 1983	Lanes 8 & 9 reverted to mixed flow; lane 1 converted to HOV; lanes 18/19 merge moved from downstream of toll plaza to downstream of metering signals
		Apr 22, 1986	Mini toll plaza (lane 18, 19, 20) opened; right side HOV lanes designated as lanes 21 & 22
		Sep 7, 1988	Hours of Operation were extended from 6-9 AM to 5-10 AM on September 7, 1988.
		Sep 7, 1988	The HOVL violation fine increased in early 1989.
		Nov 3, 1989	Lane 2 converted to HOV; left HOVL extended upstream to 32nd St on-ramp; AM HOV hours changed to 5:00- 10:00 AM, Mon-Fri
		Mar 1, 1992	Motorcycles permitted
		Oct 1, 1995	Two-seat vehicles with two occupants permitted
		Apr 8, 1997	HOV slip ramp approaching right side of toll plaza opened; buses only, 24 hours/day, 7 days/week; carpools/motorcycles OK, 5:00-10:00 AM, 3:00-6:00 PM, Mon-Fri
		Jul 23, 1997	Route 880 right side HOV ramp opened; buses only, 24 hours/day, 7 days/week; carpools/motorcycles OK, 5:00-10:00 AM; 3:00-6:00 PM, Mon-Fri
		Feb. 2, 1998	PM Hours of operation changed to 3:00-7:00 PM
		May 16, 1998	Route 880 left side HOV ramp opened; buses/carpools/ motorcycles only, 5:00-10:00 AM, 3:00-7:00 PM, Mon-Fri
		Jul 1, 2000	Inherently low-emission vehicles with DMV issued decals permitted.

## ALA-80: HOV FLYOVER

OCCUPANCY	Three or more persons per vehicle, motorcycles, 2 seaters vehicles with 2 persons, inherently low-emission vehicles (ILEVs) with DMV issued decal.	
WESTBOUND	HOURS:	5:00 - 10:00 AM, 3:00 - 7:00 PM, Monday thru Friday
	LIMITS:	Powell St (MP 3.8) to HOV Slip Ramp(MP. 4.8) Length = 1.0 miles
	Feb 2, 1998	Opened; HOV flyover. Hours of operation 5:00 AM-7:00 PM, Monday thru Friday
	Aug 3, 1998	Hours of operation changed to 5-10 AM, 3-7 PM, Mon-Fri

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## ALA-80: Contra Costa County Line to I-880 Viaduct

OCCUPANCY	Three or more persons per vehicle, motorcycles, 2 seaters vehicles with 2 persons, inherently low-emission vehicles (ILEVs) with DMV issued decal.	
WESTBOUND	HOURS:	5:00 - 10:00 AM, 3:00 - 7:00 PM, Monday thru Friday
	LIMITS:	Contra Costa County Line (MP 8.0) to Powell St (MP 3.8) Length = 4.2 miles
	DATES:	Feb. 2, 1998      Opened; Contra Costa County Line to Powell St; HOV flyover opened; hours of operation 5:00 AM-7:00 PM, Monday thru Friday
	Aug 3, 1998	Hours of operation changed to 5-10 AM, 3-7 PM, Mon-Fri
EASTBOUND	HOURS:	5:00 - 10:00 AM, 3:00 - 7:00 PM, Monday thru Friday
	LIMITS:	I-880 Viaduct(MP 2.2) to Contra Costa County Line (MP 8.0) Length = 5.8 miles
	DATES:	Jul 31, 1998      Opened; Gilman St to Contra Costa County Line
	Aug 3, 1998	Hours of operation changed to 5-10 AM, 3-7 PM, Mon-Fri
	Nov 20, 1998	Extended; Powell St to Gilman St.
	Nov 12, 2003	Extended; I 880 Viaduct to Powell St.

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## ALA-84: I-880 to Dumbarton Bridge Toll Plaza

OCCUPANCY	Two or more persons per vehicle, motorcycles, inherently low-emission vehicles (ILEVs) with DMV issued decal.	
WESTBOUND	HOURS:	5:00 - 10:00 AM, 3:00 - 6:00 PM, Monday thru Friday
	LIMITS:	I-880 (MP 5.9) to west of Toll Plaza (MP 3.1) Length = 2.8 miles
	DATES:	Oct 6, 1982      Opened with new bridge; 1000-ft long bypass lane at booths
	Nov 22, 1989	Extended due to Loma Prieta quake; Newark Blvd to University Ave
	Nov 17, 1990	Shortened; Newark Blvd to west of Toll Plaza
	Jan 1, 1992	Minimum occupancy reduced from three to two persons per vehicle
	Jul 31, 2008	Extended; I-880/SR 84 Jct to Newark Blvd.

## **ALA-92: Hesperian Blvd to San Mateo Bridge Toll Plaza**

OCCUPANCY	Two or more persons per vehicle, motorcycles, inherently low-emission vehicles (ILEVs) with DMV issued decal.	
WESTBOUND	HOURS:	5:00 - 10:00 AM, 3:00 - 6:00 PM, Monday thru Friday
	LIMITS:	Hesperian on-ramp (MP 5.6) to Toll Plaza (MP 2.8) Length = 2.8 miles
	DATES:	Oct 23, 1989      Opened; Clawiter Rd on-ramp to east of Toll Plaza Jan 1, 1992      Minimum occupancy reduced from three to two persons per vehicle Jan 15, 1992      Extended; Clawiter Rd on-ramp to west of Toll Plaza Jul 2, 2001      Extended and relocated; Hesperian Blvd. To West of Toll Plaza Jun 3, 2003      Speed changed from 55mph to 65 mph July 8, 2007      Lane #1 and #2 opened for HOVs during both AM and PM peak periods.

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## **ALA-580: N. Livermore Ave to Greenville Road**

OCCUPANCY	Two or more persons per vehicle, motorcycles, inherently low-emission vehicles (ILEVs) with DMV issued decal.	
SOUTHBOUND	HOURS:	5:00 - 9:00 AM, 3:00 - 7:00 PM, Monday thru Friday
	LIMITS:	N. Livermore Avenue(MP12.6) to Greenville Road(MP8.7) Length = 3.9 miles
	DATES:	Oct 2, 2009      Opened; N. Livermore Ave to Greenville Road

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## **ALA-680: Route 84 to ALA/SCL Co. Line**

OCCUPANCY	Two or more persons per vehicle, motorcycles, inherently low-emission vehicles (ILEVs) with DMV issued decal.	
SOUTHBOUND	HOURS:	5:00 - 9:00 AM, 3:00 - 7:00 PM, Monday thru Friday
	LIMITS:	Route 84 on-ramp (MP R11.5) to Santa Clara County Line (MP 0.0) Length = 11.7 miles
	DATES:	Nov 26, 2002      Opened; Washington Blvd. On-ramp to Route 237 Calaveras Blvd. On-ramp Dec 5, 2002      Extended; Route 84 on-ramp to Route 237 Calaveras Blvd. On-ramp

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## **ALA 880: Marina Blvd to Santa Clara County Line**

OCCUPANCY	Two or more persons per vehicle, motorcycles, inherently low-emission vehicles (ILEVs) with DMV issued decal.	
SOUTHBOUND	HOURS:	5:00 - 9:00 AM, 3:00 - 7:00 PM, Monday thru Friday
	LIMITS:	Marina Blvd. (MP 22.7) to Santa Clara County Line (MP 0.0) Length = 22.5 miles

DATES:	Sep 22, 1991	Opened; A-Street to north of Tennyson
	Nov 6, 1991	Extended; Tennyson to Industrial Pkwy
	Jun 26, 1992	Extended; Rte 238 to A-Street
	Nov 18, 1993	Extended; Industrial Pkwy to Whipple Rd
	Dec 1994	Hours of operation changed from 5-10 AM and 3-6 PM to 5-9 AM, 3-7 PM respectively
	Mar 17, 1995	Extended; Marina Blvd to Rte 238
	Jun 15, 1998	Extended; Whipple Rd. to Alvarado/ Fremont Blvd.
	Oct 23, 1998	Extended; Alvarado/Fremont Blvd. to Mowry Ave.
	Dec 11, 1998	Extended; Mowry Ave. to Mission Blvd. (Rte 262)
	Aug 11, 2007	Extended; S/O Mission Blvd. (Rte 262) to Santa Clara County Line
	Nov 17, 2008	Extended; Mission Blvd. (Rte 262) to S/O Mission Blvd. (Rte 262)

NORTHBOUND      HOURS: 5:00 - 9:00 AM, 3:00 - 7:00 PM, Monday thru Friday

LIMITS: Santa Clara County Line (MP 0.0) to one mile south of Rte 238 (MP 19.3)  
Length = 19.1 miles

DATES:	Sep 19, 1991	Opened; north of Tennyson to A-Street
	Nov 8, 1991	Extended; Industrial Pkwy to Tennyson
	Jun 26, 1992	Extended; A-Street to Rte 238
	Dec 3, 1993	Extended; Whipple Rd to Industrial Pkwy
	Dec 1994	Hours of operation changed from 5-10 AM and 3-6 PM to 5-9 AM, 3-7 PM respectively
	Sep 23, 1996	Shortened; Whipple Rd to one mile south of Rte 238
	Jun 15, 1998	Extended; Alvarado/Fremont Blvd. to Whipple Rd.
	Oct 30, 1998	Extended; Mowry Ave. to Alvarado/Fremont Blvd.
	Nov 30, 1998	Extended; Mission Blvd. (Rte 262) to Mowry Ave.
	Nov 11, 2008	Extended; Santa Clara County Line to Mission Blvd. (Rte 262)

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## ALA-880: 16th Street to SFOBB Toll Plaza

OCCUPANCY      Three or more persons per vehicle, motorcycles, 2-seat vehicles with 2 persons, inherently low-emission vehicles (ILEVs) with DMV issued decal.

NORTHBOUND      HOURS: 5:00 - 10:00 AM, 3:00 - 7:00 PM, Monday thru Friday

LIMITS: 16th Street to NB Rte 880/WB Rte 80 Jct  
Length = 1.4 miles

DATES: May 16, 1998      Opened; 16th Street to left HOV ramp at SFOBB Toll Plaza



## ALA-880: West Grand Ave. to EB Rte 80 HOV Lane Merge

OCCUPANCY	Three or more persons per vehicle, motorcycles, 2-seat vehicles with 2 persons, inherently low-emission vehicles (ILEVs) with DMV issued decal.	
NORTHBOUND	HOURS: 5:00 - 10:00 AM, 3:00 - 7:00 PM, Monday thru Friday	
	LIMITS:	West Grand Ave.(MP R34.7) to EB Rte 80 HOV Lane Merge (MP R35.8) Length = 1.1 miles
	DATES:	Nov 12, 2003      Opened; West Grand Ave to EB Rte 80 HOV Lane Merge

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## CC-4: Loveridge Rd. to Port Chicago Highway

OCCUPANCY	Two or more persons per vehicle, motorcycles, inherently low-emission vehicles (ILEVs) with DMV issued decal.	
WESTBOUND	HOURS: 5:00 - 9:00 AM, Monday thru Friday	
	LIMITS:	Loveridge Rd. (MP 24.4) to Port Chicago Highway (MPR 15.7) Length = 8.7 miles
	DATES:	May 1, 2000      Opened; Bay Point to Port Chicago Highway; 6-9 AM, Mon-Fri May 5, 2000      Extended: Bailey Road to Port Chicago Highway Jul 23, 2001      Extended: West of Railroad Ave. to Port Chicago Highway Jul 24, 2006      Extended: Loveridge Rd. to Port Chicago Highway Sep 28, 2009      Hours of Operations changed to 5:00-9:00 A.M.
EASTBOUND	HOURS: 3:00 - 7:00 PM, Monday thru Friday	
	LIMITS:	Port Chicago Highway (MPR 16.2) to Railroad Ave. (MPR23.5) Length = 7.3 miles
	DATES:	Aug 6, 2001      Opened; Port Chicago Highway to West of Railroad Ave. Jul 24, 2006      Extended: Port Chicago Highway to Railroad Ave.

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## CC-80 Solano County Line to Alameda County Line

OCCUPANCY	Three or more persons per vehicle, motorcycles, 2-seat vehicles with 2 persons, inherently low-emission vehicles (ILEVs) with DMV issued decal.	
WESTBOUND	HOURS: 5:00 - 10:00 AM, 3:00 - 7:00 PM, Monday thru Friday	
	LIMITS:	Solano County Line (MP 14.1) to Alameda County Line (MP 0.0) Length = 14.1 miles

DATES:	Mar 5, 1997	Opened; Pinole Valley Rd to Cutting Blvd; 5-10 AM, Mon-Fri
	Apr 18, 1997	2-seat vehicles with 2 persons permitted to use HOVL
	May 3, 1997	Extended: Cutting Blvd to Central Ave
	Sep 20, 1997	Extended; Route 4 to Pinole Valley Rd
	Feb 2, 1998	Extended; Central Ave to Alameda County Line;
		Hours of operation changed to 5:00 AM-7:00 PM, Mon-Fri
	Aug 3, 1998	Hours of operation changed to 5-10 AM, 3-7 PM, Mon-Fri
	Aug 31, 2007	Extended; Cummings Skyway to Route 4
	Nov 17, 2007	Extended; Solano County Line to Cummings Skyway

EASTBOUND      HOURS:    5:00 - 10:00 AM, 3:00 - 7:00 PM, Monday thru Friday

LIMITS:    Alameda County Line (MP 0.0) to West of Route 4 off-ramp (MP 9.5)  
Length = 9.5 miles

DATES:	Feb 12, 1997	Opened; San Pablo Dam Rd to Pinole Valley Rd; 3-7 PM, Mon-Fri
	Feb 13, 1997	Extended; Cutting Blvd to San Pablo Dam Rd
	Apr 18, 1997	2-seat vehicles with 2 persons permitted to use HOVL
	May 3, 1997	Extended; Central Ave to Cutting Blvd
	Aug 30, 1997	Extended; Pinole Valley Rd to Route 4
	Feb 2, 1998	Hours of operation changed to 5:00 AM-7:00 PM, Mon-Fri
	Aug 3, 1998	Hours of operation changed to 5-10 AM, 3-7 PM, Mon-Fri
		Extended; Central Ave to Alameda County Line

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## CC-680: Benicia-Martinez Bridge Toll Plaza to N/O Marina Vista

OCCUPANCY      Three or more persons per vehicle, motorcycles, 2-seat vehicles with 2 persons, inherently low-emission vehicles (ILEVs) with DMV issued decals.

NORTHBOUND      HOURS:    5:00 - 10:00 AM, 3:00 - 7:00 PM, Monday thru Friday

LIMITS:    Benicia-Martinez Bridge Toll Plaza (24.5) to North of Marina Vista(24.1)  
Length = 1.0 miles

DATES:      Aug 26, 2007      Opened; Opened with new bridge; 1.0 mile long bypass lane #1 from N/O Marina Vista to Toll Plaza

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## CC-680: Marina Vista to N/O North Main St.

OCCUPANCY      Two or more persons per vehicle, motorcycles, inherently low-emission vehicles (ILEVs) with DMV issued decal.

SOUTHBOUND      HOURS:    5:00 - 9:00 AM, 3:00 - 7:00 PM, Monday thru Friday

LIMITS:    South of Marina Vista(MP 24.1) to 0.7 miles N/O North Main St. off-ramp (MP 16.3)  
Length = 7.8 miles

DATES:	Sep 11, 2004	Opened; S/O Route 4 to N/O North Main St.
	Jun 14, 2005	Extended S/O Marina Vista to North Main St.
	Sep 28, 2009	Hours of Operations changed to 5:00-9:00 AM

NORTHBOUND      HOURS:    5:00 - 9:00 AM, 3:00 - 7:00 PM, Monday thru Friday

LIMITS:        Route 242 I/C (R18.7) to South of Marina Vista(24.1)  
Length = 4.4 miles

DATES:        Apr 28, 2005      Opened; Route 242 to South of Marina Vista.  
Sep 28, 2009      Hours of Operations changed to 5:00-9:00 AM

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## CC-680: Livorna Rd to Alcosta Blvd.

OCCUPANCY        Two or more persons per vehicle, motorcycles, inherently low-emission vehicles (ILEVs)  
with DMV issued decal.

SOUTHBOUND      HOURS:    5:00 - 9:00 AM, 3:00 - 7:00 PM, Monday thru Friday

LIMITS:        0.5 miles north of Livorna Rd off-ramp (MP R11.9) to north of  
Alcosta Blvd on-ramp (MP R21.6)

Length = 11.9 miles

DATES:        Oct 3, 1994      Opened; Stone Valley Rd on-ramp to Alcosta Blvd on-ramp  
Feb 6, 1995      Extended; Livorna Rd on-ramp to Alcosta Blvd  
May 5, 1999      Shortened; Livorna Rd on-ramp to north of Alcosta Blvd off-ramp  
Sep 28, 2009      Hours of Operations changed to 5:00-9:00 AM , 3:00-7:00 PM

NORTHBOUND      HOURS:    5:00 - 9:00 AM, 3:00 - 7:00 PM, Monday thru Friday

LIMITS:        0.4 miles south of Alcosta on-ramp (MP R21.6) to Livorna  
on-ramp (MP R11.9)  
Length = 12.9 miles

DATES:        Oct 3, 1994      Opened; Alcosta Blvd on-ramp to Stone Valley Rd on-ramp  
Feb 6, 1995      Extended; Alcosta Blvd to Livorna Rd on-ramp  
Sep 28, 2009      Hours of Operations changed to 5:00-9:00 AM , 3:00-7:00 PM

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## MRN-101: Route 37 to Richardson Bridge

OCCUPANCY        Two or more persons per vehicle, motorcycles permitted, inherently low-emission vehicles (ILEVs)  
with DMV issued decal.

SOUTHBOUND      HOURS:    6:30 - 8:30 AM, Monday thru Friday

LIMITS:        Route 37 (MP18.9) to Richardson Bridge (MP 4.8)  
Length = 14.1 miles

DATES:        Dec 23, 1974      Opened; buses only  
Jun 16, 1976      Carpools permitted; min. occ. three persons per vehicle  
Jul 24, 1987      Opened; Marinwood to North San Pedro Rd  
Oct 1, 1988      Minimum occupancy reduced from three to two persons per vehicle  
Sep 23, 1990      Motorcycles permitted  
Feb 8, 1991      Extended; Marinwood to Rte 37  
Jul 13, 1998      HOV hours extended to 5:00-9:00 AM  
Dec 14, 1998      Extended hours cancelled  
Jul 17, 2006      Extended; Andersen Dr. to North of Greenbrae ped OC  
Nov 13, 2008      Extended; Mission Ave. to Anderson Dr.  
Feb 2, 2009      Continuous HOV Lane; New Limit; Rte 37 to Richardson Bridge

NORTHBOUND      HOURS:    4:30 - 7:00 PM, Monday thru Friday

LIMITS:      Richardson Bridge (MP 3.9) to Route 37 (MP18.3)  
Length = 14.4 miles

DATES:      Dec 20, 1974      Opened; buses only  
                  Jun 15, 1976      Carpools permitted; min. occ. three persons per vehicle  
                  Aug 12, 1986      Opened; North San Pedro to Marinwood  
                  Oct 1, 1988      Minimum occupancy reduced from three to two persons per vehicle  
                  Sep 23, 1990      Motorcycles permitted  
                  Jul 13, 1998      HOV hours extended to 3:00-7:00 PM  
                  Dec 14, 1998      Extended hours cancelled  
                  Jul 20, 2006      Extended: North of Corte Madera to Nellen Ave. UC  
                  Apr 24, 2009      Continuous HOV Lane. New Limit; Richardson Bridge to Rte 37

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## **SCL-85: Rte 101 (Mountain View) to Rte 101 ( San Jose)**

OCCUPANCY      Two or more persons per vehicle, motorcycles, inherently low-emission vehicles (ILEVs)  
with DMV issued decal.

SOUTHBOUND      HOURS:    5:00 - 9:00 AM, 3:00 - 7:00 PM, Monday thru Friday

LIMITS:      Rte 85/101 connector ramp in So. San Jose (MP 23.8) to Rte 101 in  
Mountain View (MP 0.0)  
Length = 23.8 miles

DATES:      Apr 25, 1990      Opened; Rte 237 to Rte 280  
                  Aug 12, 1994      New section; Almaden Expwy to Bernal Rd  
                  Oct 19, 1994      Extended; Rte 280 to Almaden Expwy  
                  Nov 13, 1998      Extended; Rte 101 (Mountain View) to Rte 237  
                  Oct 22, 2004      Opened direct HOV Connector from Rte 85 to Rte 101(San Jose)  
                  May 26, 2006      Opened direct HOV Connector from Rte 101 to Rte 85(Mountain View)

NORTHBOUND      HOURS:    5:00 - 9:00 AM, 3:00 - 7:00 PM, Monday thru Friday

LIMITS:      Rte 85/101 connector ramp in So. San Jose (MP 0.0) to  
Rte 101 in Mountain View (MP 24.2)  
Length = 24.2 miles

DATES:      Feb 22, 1990      Opened; Rte 280 to Rte 237  
                  Aug 12, 1994      New section; Rte 101 (San Jose) to Almaden Expwy  
                  Oct 19, 1994      Extended; Almaden Expwy to Rte 280  
                  Nov 6, 1998      Extended; Rte 237 to Rte 101 (Mountain View)  
                  Sep 20, 2004      Opened direct HOV Connector from Rte 101 to Rte 85(San Jose)  
                  May 26, 2006      Opened direct HOV Connector from Rte 85 to Rte 101(Mountain View)

## SCL-87: Route 101 I/C to Route 85 I/C

OCCUPANCY	Two or more persons per vehicle, motorcycles, inherently low-emission vehicles (ILEVs) with DMV issued decal.	
SOUTHBOUND	HOURS:	5:00 - 9:00 AM, 3:00 - 7:00 PM, Monday thru Friday
	LIMITS:	Route 101 I/C to Route 85 I/C Length = 9.6 miles
	DATES:	Dec 23, 2004    Opened; Rte 101 to Taylor Avenue Mar 16, 2007    New Section; Rte 280 to SR 85 Jul 26, 2007    Extended; Taylor Avenue to Route 280
NORTHBOUND	HOURS:	5:00 - 9:00 AM, 3:00 - 7:00 PM, Monday thru Friday
	LIMITS:	Route 85 I/C (MP0.0) to Route 101 I/C (MP9.2) Length = 9.2 miles
	DATES:	Apr 18, 2005    Opened; Taylor Avenue to Rte 101 Feb 4, 2007    New Section; SR 85 to Rte 280 May 24, 2007    Extended; Rte 280 to Taylor Avenue

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## SCL-101: San Mateo County Line to Cochrane Rd

OCCUPANCY	Two or more persons per vehicle, motorcycles, inherently low-emission vehicles (ILEVs) with DMV issued decal.	
SOUTHBOUND	HOURS:	5:00 - 9:00 AM, 3:00 - 7:00 PM, Monday thru Friday
	LIMITS:	San Mateo County Line (MP 52.6) to 0.5 mile north of Cochrane Rd off-ramp (MP 18.4) Length = 34.2 miles
	DATES:	Nov 10, 1986    Opened; Lawrence Expwy to De La Cruz Blvd Aug 8, 1988    Extended; Ellis St to Lawrence Expwy Oct 10, 1988    Extended; N. Rengstorff Ave to Ellis St Dec 12, 1988    Extended; San Mateo Co. Line to N. Rengstorff Ave Jun 15, 1990    New section; Rte 101/280/680 I/C to north of Bernal Rd Jan 29, 1993    Extended; Rte 880 to Rte 101/280/680 I/C  Apr 5, 1993    Extended; De La Cruz Blvd to Rte 880 Mar 19, 2003    Opened; Bernal Road to Cochrane Road
NORTHBOUND	HOURS:	5:00 - 9:00 AM, 3:00 - 7:00 PM, Monday thru Friday
	LIMITS:	Cochrane Rd on-ramp (MP 17.8) to San Mateo County Line (MP 52.6) Length = 34.8 miles

DATES:	Nov 7, 1986	Opened; Guadalupe Pkwy to Great America Pkwy
	Oct 10, 1988	Extended; Great America Pkwy to N. Rengstorff Ave
	Dec 12, 1988	Extended; N. Rengstorff Ave to San Mateo Co. Line
	Jun 7, 1990	New section; Bernal Rd to Rte 101/280/680 I/C
	Feb 1, 1993	Extended; Rte 101/280/680 I/C to Old Oakland Rd
	Apr 5, 1993	Extended; Old Oakland Rd to Guadalupe Pkwy
	May 19, 2003	Opened; Cochrane Rd to Bernal Road

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## SCL-237: Rte 880 to Mathilda Ave

OCCUPANCY	Two or more persons per vehicle, motorcycles, inherently low-emission vehicles (ILEVs) with DMV issued decal.	
WESTBOUND	HOURS:	5:00 - 9:00 AM, 3:00 - 7:00 PM, Monday thru Friday
	LIMITS:	Jct. Rte 880/237 (MP 9.3) to east of Mathilda Ave (MP 3.2) Length = 6.1 miles
	DATES:	Oct 31, 1984    Opened; Rte 880 to Lawrence Expwy; right side HOVL Nov/Dec 1991    Extended; Lawrence Expwy to east of Mathilda Ave; right side HOVL May 1, 1995    Rte 237 upgraded to fwy; HOVL relocated to left lane;  hours expanded to include the PM peak (3-7 PM) May 1, 2005    Opened direct HOV connectors SB 880/WB 237
EASTBOUND	HOURS:	5:00 - 9:00 AM, 3:00 - 7:00 PM, Monday thru Friday
	LIMITS:	Mathilda Ave (MP 2.8) to Jct Rte 880/237 (MP 9.3) Length = 6.5 miles
	DATES:	Oct 31, 1984    Opened; Lawrence Expwy to Rte 880; right side HOVL Nov/Dec 1991    Extended; Mathilda Ave to Rte 880 May 1, 1995    Rte 237 upgraded to fwy; HOVL relocated to left lane; hours expanded to include the AM peak (5-9 AM)  Oct 2, 1996    Shortened; Mathilda Ave to 1.1 miles west of Rte 880 Apr. 29, 2005    Opened; Route 880/237 HOVL Direct Connector

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## SCL-280: Magdalena Ave to Leland Ave

OCCUPANCY	Two or more persons per vehicle, motorcycles, inherently low-emission vehicles (ILEVs) with DMV issued decal.	
SOUTHBOUND	HOURS:	5:00 - 9:00 AM, 3:00 - 7:00 PM, Monday thru Friday
	LIMITS:	Magdalena Ave on-ramp (MP 14.0) to north of Meridian Ave (MP R4.2) Length = 10.5 miles
	DATES:	Dec 1, 1990    Opened; Magdalena Ave to north of Meridian Ave

NORTHBOUND      HOURS:    5:00 - 9:00 AM, 3:00 - 7:00 PM, Monday thru Friday

                     LIMITS:    South of Leland Ave (MP L4.7) to Magdalena Ave off-ramp (MP 14.0)  
   Length = 10.8 miles

                     DATES:    Nov 21, 1990      Opened; south of Leland Ave to Magdalena Ave

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### **SCL-680: ALA/SCL County Line to Route 237 Calaveras Blvd.**

OCCUPANCY      Two or more persons per vehicle, motorcycles, inherently low-emission vehicles (ILEVs)  
   with DMV issued decal.

SOUTHBOUND      HOURS:    5:00 - 9:00 AM, 3:00 - 7:00 PM, Monday thru Friday

                     LIMITS:    Alameda County Line (MP 9.9) to Route 237 Calaveras Blvd. On-ramp (MP M7.6)  
   Length = 2.3 miles

                     DATES:    Nov 26, 2002      Opened; Washington Blvd. On-ramp to Route 237 Calaveras Blvd. On-ramp  
   Dec 5, 2002      Extended; Route 84 on-ramp to Route 237 Calaveras Blvd. On-ramp

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### **SCL-880: Alameda County Line to I-880/SR 237 Junction**

OCCUPANCY      Two or more persons per vehicle, motorcycles, inherently low-emission vehicles (ILEVs)  
   with DMV issued decal.

SOUTHBOUND      HOURS:    5:00 - 9:00 AM, 3:00 - 7:00 PM, Monday thru Friday

                     LIMITS:    Alameda County Line (MP 10.5) to Jct I-880/237 (MP 8.5)  
   Length = 2.0 miles

                     DATES:    May 1, 2005      Opened; S/O Dixon Landing to I-880/SR 237 Jct.  
   August 11, 2007    Extended; Alameda County Line To S/O Dixon Landing Rd.

NORTHBOUND      HOURS:    5:00 - 9:00 AM, 3:00 - 7:00 PM, Monday thru Friday

                     LIMITS:    I-880/237 Jct (MP 8.5) to Alameda County Line (MP 10.5)  
   Length = 2.0 miles

                     DATES:    Apr 22, 2005      Opened; I-880/SR 237 Jct to S/O Dixon Landing Rd.  
   Nov 11, 2008      Extended; S/O Dixon Landing Rd. to Alameda County Line



## **SM-101: Whipple Ave to Santa Clara County Line**

OCCUPANCY	Two or more persons per vehicle, motorcycles, inherently low-emission vehicles (ILEVs) with DMV issued decal.
SOUTHBOUND	HOURS: 5:00 - 9:00 AM, 3:00 - 7:00 PM, Monday thru Friday  LIMITS: Whipple Ave (MP 6.9) to Santa Clara Co. Line (MP 0.0) Length = 6.9 miles  DATES: Jul 18, 1991      Opened
NORTHBOUND	HOURS: 5:00 - 9:00 AM, 3:00 - 7:00 PM, Monday thru Friday  LIMITS: Santa Clara Co. Line (MP 0.0) to Whipple Ave (MP 6.6) Length = 6.6 miles  DATES: Jul 16, 1991      Opened

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## **SOL-80: East of Airbase Parkway to Red Top Road**

OCCUPANCY	Two or more persons per vehicle, motorcycles, 2-seat vehicles with 2 persons, inherently low-emission vehicles (ILEVs) with DMV issued decals.
WESTBOUND	HOURS: 5:00 - 10:00 AM, 3:00 - 7:00 PM, Monday thru Friday  LIMITS: East of Airbase Parkway(MP19.93) to East of Red Top Road(MP11.85) Length = 8.1 mile  DATE: Oct 1, 2009      Opened
EASTBOUND	HOURS: 5:00 - 10:00 AM, 3:00 - 7:00 PM, Monday thru Friday  LIMITS: Red Top Road On Ramp(MP11.5) to East of Airbase Parkway(MP19.7) Length = 8.2 mile  DATE: Nov 4, 2009      Opened

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## **SOL-80: Route 29 to Contra Costa County Line**

OCCUPANCY	Three or more persons per vehicle, motorcycles, 2-seat vehicles with 2 persons, inherently low-emission vehicles (ILEVs) with DMV issued decals.
WESTBOUND	HOURS: 5:00 - 10:00 AM, 3:00 - 7:00 PM, Monday thru Friday  LIMITS: Route 29 (MP 0.9) to Contra Costa County Line (MP 0.0) Length = 0.9 mile  DATES: Nov 17, 2007      Extended; Route 29 to Contra Costa County Line

## SOL-80: Carquinez Bridge Toll Plaza

OCCUPANCY	Three or more persons per vehicle, motorcycles, 2-seat vehicles with 2 persons, inherently low-emission vehicles (ILEVs) with DMV issued decals.	
EASTBOUND	HOURS:	5:00 - 10:00 AM, 3:00 - 7:00 PM, Monday thru Friday
	LIMITS:	0.1 miles West of Toll Plaza (MP 0.5) to east of Toll Plaza (MP 0.6) Length = 0.1 mile
	DATES:	Jul 1, 1991      Reduced 10c toll tickets for HOVs (with purchase of 50-ticket book) Oct 1, 1995      Toll-free passage in designated booth only; Two-seat vehicles with two occupants permitted Jul 30, 1997      Opened; West of Toll Plaza to east of Toll Plaza Aug 11, 2007      HOV Lane moved from toll booth #6 to toll booth #1 Oct 29, 2007      HOV allowed in Booth # 11

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## SON-101: Windsor River Road to Wilfred Avenue

OCCUPANCY	Two or more persons per vehicle, motorcycles, inherently low-emission vehicles (ILEVs) with DMV issued decal.	
SOUTHBOUND	HOURS:	7:00 - 9:00 AM, 3:00 - 6:30 PM, Monday thru Friday
	LIMITS:	Windsor River Road (MP 29.3) to Wilfred Avenue (MP15.5) Length = 13.8 miles
	DATES:	Nov 4, 2002      Opened. Dec 11, 2003      Hours of Operation changed to 7-9 AM, 3-6:30 PM, MON - FRI Nov 10, 2008      Extended; Steele Lane to Route 12 Dec 7, 2009      Extended; Windsor River Rd to Steele Lane
NORTHBOUND	HOURS:	7:00 - 9:00 AM, 3:00 - 6:30 PM, Monday thru Friday
	LIMITS:	Wilfred Avenue(MP 15.4) to Windsor River Road (MP29.0) Length = 13.6 miles
	DATES:	Nov 4, 2002      Opened. Dec 11, 2003      Hours of Operation changed to 7-9 AM, 3-6:30 PM, MON - FRI Nov 10, 2008      Extended; Route 12 to Steele Lane Dec 6, 2009      Extended; Steele Lane to Windsor River Rd

# TOLL BRIDGE HOV BYPASS LANES

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## Antioch Bridges

OCCUPANCY	Three or more persons per vehicle, motorcycles, two-seat vehicles with two occupants, inherently low-emission vehicles (ILEVs) with DMV issued decals.	
HOURS	5:00 - 10:00 AM, 3:00 - 7:00 PM, Monday thru Friday	
TOLL-FREE BOOTHS	Antioch	Lanes #2 and #3
DATES	Jul 1, 1991	Reduced 10¢ toll tickets for HOVs (with purchase of 50-ticket book)
	Oct 1, 1995	Toll-free passage in designated booth only; Two-seat vehicles with two occupants permitted

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## Benicia-Martinez Bridge

OCCUPANCY	Three or more persons per vehicle, motorcycles, two-seat vehicles with two occupants, inherently low-emission vehicles (ILEVs) with DMV issued decals.	
HOURS	5:00 - 10:00 AM, 3:00 - 7:00 PM, Monday thru Friday	
TOLL-FREE BOOTHS	Benicia Br.	Left side bypass lane and lane #11
DATES	See information in Mainline HOV Lane Section	

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## Richmond-San Rafael Bridge

OCCUPANCY	Three or more persons per vehicle, motorcycles, two-seat vehicles with two occupants, inherently low-emission vehicles (ILEVs) with DMV issued decals.	
HOURS	5:00 - 10:00 AM, 3:00 - 6:00 PM, Monday thru Friday	
TOLL-FREE BOOTH	#3, #6	
DATES	Oct. 23, 1989	Toll-free passage in designated booth only;
	Oct 1, 1995	Two-seat vehicles with two occupants permitted
	Oct 16, 2007	HOV allowed moved from booth #4 to booth #3
	Oct 29, 2007	HOV allowed in Booth #6

# TOLL BRIDGE HOV BYPASS LANES

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## Dumbarton Bridge

OCCUPANCY	Two or more persons per vehicle, motorcycles, inherently low-emission vehicles (ILEVs) with DMV issued decal.
HOURS	5:00 - 10:00 AM, 3:00 - 6:00 PM, Monday thru Friday
TOLL-FREE BOOTHS	Dumbarton Left side bypass lane
DATES	See information in Mainline HOV Lane section

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## San Mateo-Hayward Bridge

OCCUPANCY	Two or more persons per vehicle, motorcycles, inherently low-emission vehicles (ILEVs) with DMV issued decal.
HOURS	5:00 - 10:00 AM, 3:00 - 6:00 PM, Monday thru Friday
TOLL-FREE BOOTHS	San Mateo Left side bypass lanes #1 and #2
DATES	See information in Mainline HOV Lane section

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## San Francisco-Oakland Bay Bridge

OCCUPANCY	Three or more persons per vehicle, motorcycles, two-seat vehicles with two occupants, inherently low-emissions vehicles (ILEVs) with DMV issued decal.
HOURS	5:00 - 10:00 AM, 3:00 - 7:00 PM, Monday thru Friday
TOLL-FREE BOOTHS	#1, #2, Lanes 21 & 22
DATES	See information in Ala-80 Mainline HOV Lane section

# TOLL BRIDGE HOV BYPASS LANES

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## Carquinez Bridge

OCCUPANCY	Three or more persons per vehicle, motorcycles, two-seat vehicles with two occupants, inherently low-emissions vehicles (ILEVs) with DMV issued decal.
HOURS	5:00 - 10:00 AM, 3:00 - 7:00 PM, Monday thru Friday
TOLL-FREE BOOTHS	#1, #11
DATES	See information in Sol-80 Mainline HOV lane section

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# **MAINLINE HOV LANES**

## **VOLUME/PERSON DATA and VIOLATION HISTORY**

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# ALAMEDA-80

San Francisco-Oakland Bay Bridge Toll Plaza

## Westbound - A.M.

Typical data for 2009

(6)

### PEAK PERIOD

(5)

6:00 - 10:00 AM

### PEAK HOUR

7:00 - 8:00 AM

#### VEHICLES

	HOV Lanes	Mixed Flow Lanes	HOV Lanes	Mixed Flow Lanes
Motorcycles	459	—	97	—
Buses <sup>(4)</sup>	257	—	78	—
Carpools <sup>(1)</sup>	6310	—	2300	—
2 - seaters <sup>(2)</sup>	1645	—	539	—
Hybrid	641	---	185	---
Vanpools	115	—	21	—
Violators	1250	—	474	—
<b>TOTAL</b>	<b>10677</b>	<b>2401 <sup>(7)</sup></b>	<b>3694</b>	<b>5464</b>

#### PERSONS

	HOV Lanes	Mixed Flow Lanes	HOV Lanes	Mixed Flow Lanes
Motorcycles	459	—	97	—
Buses <sup>(4)</sup>	8995	—	2730	—
Carpools <sup>(1)</sup>	19561	—	7130	—
2 - seaters <sup>(2)</sup>	3290	—	1078	—
Hybrid	641	---	185	---
Vanpools	1150	—	210	—
Violators	1854	—	747	—
<b>TOTAL</b>	<b>35950</b>	<b>2761 <sup>(7)</sup></b>	<b>12177</b>	<b>6284</b>

#### RATES

HOV Lane Occupancy Rate	3.4 persons/veh	3.3 persons/veh
Mixed Flow Occupancy Rate <sup>(7)</sup>	1.1 persons/veh	1.1 persons/veh
Violation rate <sup>(3)</sup> (HOV Lane)	11.7 %	12.8 %

**NOTES:** (1) 3 or more persons per vehicle.

(2) 2 - seater vehicles with 2 persons.

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane}}{\text{Total no. of vehicles in HOV lane}} \times 100\%$

(4) Assumed AM bus occupancy = 35 persons/vehicle.

(5) HOV lanes in operation from 5:00 to 10:00 AM.

(6) Observations conducted 12/1/09 at the SFOBB Toll Plaza.

(7) Data from Toll Plaza Vehicle Registration Report.

# ALAMEDA-80

San Francisco-Oakland Bay Bridge Toll Plaza

## Westbound - P.M.

Typical data for 2009

(6)

### PEAK PERIOD

(5)

3:00 - 7:00 PM

### PEAK HOUR

5:00 - 6:00 P.M.

#### VEHICLES

	HOV Lanes	Mixed Flow Lanes
Motorcycles	228	—
Buses (4)	327	—
Carpools (1)	1638	—
2 - seaters (2)	391	—
Hybrid	339	---
Vanpools	54	—
Violators	359	—
<b>TOTAL</b>	<b>3336</b>	<b>24381</b> (7)

	HOV Lanes	Mixed Flow Lanes
Motorcycles	62	—
Buses (4)	91	—
Carpools (1)	443	—
2 - seaters (2)	107	—
Hybrid	120	---
Vanpools	17	—
Violators	97	—
<b>TOTAL</b>	<b>937</b>	<b>6630</b>

#### PERSONS

	HOV Lanes	Mixed Flow Lanes
Motorcycles	228	—
Buses (4)	5232	—
Carpools (1)	5078	—
2 - seaters (2)	782	—
Hybrid	339	---
Vanpools	432	—
Violators	608	—
<b>TOTAL</b>	<b>12699</b>	<b>29257</b> (7)

	HOV Lanes	Mixed Flow Lanes
Motorcycles	62	—
Buses (4)	1456	—
Carpools (1)	1373	—
2 - seaters (2)	214	—
Hybrid	120	---
Vanpools	136	—
Violators	164	—
<b>TOTAL</b>	<b>3525</b>	<b>7956</b>

#### RATES

HOV Lane Occupancy Rate	3.8 persons/veh
Mixed Flow Occupancy Rate (7)	1.1 persons/veh
Violation rate (HOV Lane) (3)	10.8 %

HOV Lane Occupancy Rate	3.8 persons/veh
Mixed Flow Occupancy Rate (7)	1.1 persons/veh
Violation rate (HOV Lane) (3)	10.4 %

**NOTES:** (1) 3 or more persons per vehicle.

(2) 2 - seater vehicles with 2 persons.

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$

(4) Assumed PM bus occupancy = 16 persons/vehicle.

(5) HOV lanes in operation from 3:00 to 7:00 P.M.

(6) Observations conducted 9/29/09 at the SFOBB Toll Plaza.

(7) Data from Toll Plaza Hourly Vehicle Registration Report.



# ALAMEDA-80

San Francisco-Oakland Bay Bridge

## Violation History

Westbound

	DATE	TOTAL HOVL VOLUME	VIOLATION RATE	By Lane		By Time				
				Lanes 1 & 2	Lanes 21&22	5 - 6 AM	6 - 7 AM	7 - 8 AM	8 - 9 AM	9 - 10 AM
<b>A.M.</b>	Tue Dec 1, 2009	10677	<b>11.7%</b>	8.7%	14.8%	---	12.0%	12.8%	9.9%	12.0%
<b>PEAK</b>	Wed May 28, 2008	10851	<b>9.0%</b>	6.7%	11.3%	---	13.8%	7.8%	6.0%	7.9%
	Tue May 22, 2007	11427	<b>6.5%</b>	8.0%	4.9%	---	10.0%	6.9%	4.0%	5.2%
	Wed May 31, 2006	10394	<b>9.7%</b>	10.3%	9.1%	---	18.4%	6.8%	6.0%	5.9%
	Tue Nov 15, 2005	10261	<b>9.9%</b>	8.7%	11.2%	---	13.3%	8.1%	5.8%	16.1%
	Wed Nov 3, 2004	10917	<b>10.0%</b>	8.2%	11.7%	21.4%	12.5%	7.9%	6.3%	9.0%
	Wed May 28, 2003	10803	<b>8.2%</b>	7.4%	9.0%	15.5%	8.4%	7.0%	6.1%	9.6%
	Thu May 9, 2002	11481	<b>9.5%</b>	4.9%	13.8%	22.4%	12.0%	7.5%	3.8%	10.5%
	Wed May 23, 2001	13100	<b>10.0%</b>	7.2%	12.8%	22.3%	12.2%	5.8%	6.9%	10.4%
	Thu Nov 9, 2000	12991	<b>14.7%</b>	8.9%	19.9%	37.8%	16.9%	10.4%	6.4%	14.3%
	Thu Oct 14, 1999	11644	<b>19.5%</b>	9.8%	29.7%	60.1%	32.6%	7.7%	6.9%	11.5%
	Tue Apr 21, 1998	9696	<b>10.6%</b>	7.6%	12.5%	14.2%	22.7%	6.4%	4.1%	9.2%
	Wed Jun 11, 1997	7655	<b>10.9%</b>	1.0%	12.4%	20.9%	10.6%	8.1%	6.0%	21.5%
							<b>3 - 4 PM</b>	<b>4 - 5 PM</b>	<b>5 - 6 PM</b>	<b>6 - 7 PM</b>
<b>P.M.</b>	Tue Sep 29, 2009	3336	<b>10.8%</b>	17.0%	4.1%		13.9%	8.9%	10.4%	10.3%
<b>PEAK</b>	Thu May 1, 2008	3330	<b>9.9%</b>	7.8%	12.4%		11.8%	9.4%	9.6%	8.9%
	Wed May 23, 2007	3541	<b>7.8%</b>	5.9%	10.4%		9.4%	7.0%	7.3%	7.9%
	Thu Oct 19, 2006	3645	<b>14.9%</b>	11.0%	19.0%		15.2%	14.8%	14.3%	15.5%
	Tue Oct 25, 2005	3106	<b>16.3%</b>	18.5%	13.5%		20.2%	13.5%	13.9%	18.5%
	Thu Oct 28, 2004	3290	<b>9.1%</b>	10.6%	7.0%		10.9%	7.9%	8.1%	9.6%
	Tue May 27, 2003	3891	<b>14.7%</b>	17.2%	11.8%		24.4%	11.7%	9.3%	15.7%
	Wed Sep 18, 2002	3327	<b>11.7%</b>	12.7%	15.0%		16.5%	11.6%	10.9%	15.8%
	Wed Oct 3, 2001	3602	<b>9.8%</b>	10.6%	8.8%		12.6%	7.6%	9.3%	10.1%
	Thu Oct 19, 2000	3673	<b>25.6%</b>	17.0%	33.3%		32.0%	24.4%	21.1%	0.253
	Thu Oct 14, 1999	3193	<b>10.6%</b>	12.0%	9.0%		15.6%	10.4%	7.6%	9.7%

**NOTES:** (a) Two-seater vehicles with 2 persons allowed in HOVL effective October 1, 1995.  
 (b) Hours of operation were extended from 3-6 PM to 3-7 PM on February 2, 1998.  
 (c) Hours of operation from 5:00 to 10:00 AM and 3:00 to 7:00 PM.

# ALAMEDA-80

## HOV FLYOVER RAMP

Powell Street to SFOBB

## Westbound - A.M.

Typical data for 2009 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup>		PEAK HOUR	
	6:00 - 10:00 AM		6:00 - 7:00 AM	
	HOV Lane	SOV Lane	HOV Lane	SOV Lane
Motorcycles	176	—	53	—
Buses	68	—	25	—
Carpool <sup>(1)</sup>	2387	—	664	—
2 - seaters <sup>(2)</sup>	888	—	359	—
Hybrid	381	—	76	—
Vanpools	61	—	45	—
Violators	627	—	223	—
<b>TOTAL</b>	4588	N/A	1445	N/A
PERSONS	HOV Lane		HOV Lane	
	SOV Lane		SOV Lane	
Motorcycles	176	—	53	—
Buses	2380	—	875	—
Carpool <sup>(1)</sup>	7400	—	2058	—
2 - seaters <sup>(2)</sup>	1776	—	718	—
Hybrid	381	—	76	—
Vanpools	360	—	450	—
Violators	1050	—	363	—
<b>TOTAL</b>	13523	N/A	4593	N/A
RATES	HOV Lane		HOV Lane	
	occupancy rate		occupancy rate	
HOV Lane occupancy rate	2.9 persons/veh		3.2 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	13.7 %		15.4 %	

**NOTES:** (1) 3 or more persons per vehicle.

(2) 2 - seater vehicles with 2 persons.

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$

(4) HOV lane in operation from 5:00 to 10:00 AM.

(5) Observations conducted 10/9/08 at the downstream touchdown of the flyover

# ALAMEDA-80

## HOV FLYOVER RAMP

Powell Street to SFOBB

## Westbound - P.M.

Typical data for 2009 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup>		PEAK HOUR	
	3:00 - 7:00 PM		5:00 - 6:00 PM	
	HOV Lane	SOV Lane	HOV Lane	SOV Lane
Motorcycles	86	—	38	—
Buses	122	—	34	—
Carpool <sup>(1)</sup>	795	—	254	—
2 - seaters <sup>(2)</sup>	212	—	75	—
Hybrid	165	—	52	—
Vanpools	27	—	5	—
Violators	182	—	37	—
<b>TOTAL</b>	1589	N/A	495	N/A
PERSONS	HOV Lane		HOV Lane	
	SOV Lane		SOV Lane	
Motorcycles	86	—	38	—
Buses	1952	—	544	—
Carpool <sup>(1)</sup>	2465	—	787	—
2 - seaters <sup>(2)</sup>	424	—	150	—
Hybrid	165	—	52	—
Vanpools	216	—	40	—
Violators	279	—	59	—
<b>TOTAL</b>	5587	N/A	1670	N/A
RATES	HOV Lane		HOV Lane	
	occupancy rate		occupancy rate	
HOV Lane occupancy rate	3.5 persons/veh		3.4 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	11.5 %		7.5 %	

**NOTES:** (1) 3 or more persons per vehicle.

(2) 2 - seater vehicles with 2 persons.

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$

(4) HOV lane in operation from 3:00 to 7:00 PM.

(5) Observations conducted 9/30/09 at the downstream touchdown of the flyover.

# ALAMEDA-80

## HOV FLYOVER RAMP

Powell Street to SFOBB

## Violation History

### Westbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
<b>A.M. PEAK</b>	Tue Jun 9, 2009	6:00 - 10:00 AM	4588	13.7%
	Thu Oct 9, 2008	6:00 - 10:00 AM	4461	7.2%
	Thu May 24, 2007	6:00 - 10:00 AM	4328	11.3%
	Thu Jun 8, 2006	5:00 - 10:00 AM	5462	16.3%
	Thu Jun 2, 2005	6:00 - 10:00 AM	4848	13.3%
	Tue Dec 14, 2004	6:00 - 10:00 AM	2937	16.3%
	Wed Nov 5, 2003	6:00 - 10:00 AM	4286	13.9%
	Wed May 29, 2002	6:00 - 10:00 AM	4644	2.9%
	Wed Mar 28, 2001	5:00 - 10:00 AM	5108	18.6%
	Wed May 17, 2000	5:00 - 10:00 AM	5274	16.5%
	Wed Apr 21, 1999	7:00 - 10:00 AM	3900	5.6%
<b>P.M. PEAK</b>	Wed Sep 30, 2009	3:00 - 7:00 PM	1589	11.5%
	Wed Oct 8, 2008	3:00 - 7:00 PM	1367	13.6%
	Thu Sep 27, 2007	3:00 - 7:00 PM	1490	10.9%
	Wed Oct 25, 2006	3:00 - 7:00 PM	1227	16.2%
	Wed May 18, 2005	3:00 - 7:00 PM	1209	20.6%
	Wed Nov 3, 2004	3:00 - 6:00 PM	953	17.5%
	Tue Nov 4, 2003	3:00 - 6:00 PM	839	26.8%
	Tue Sep 17, 2002	3:00 - 7:00 PM	1123	20.4%
	Wed Oct 3, 2001	3:00 - 7:00 PM	1045	26.1%
	Tue Dec 12, 2000	3:00 - 5:00 PM	490	16.1%
	Wed Feb 3, 1999	3:00 - 7:00 PM	946	30.7%

**NOTES:** (a) Morning period of operation from 5:00 to 10:00 AM  
(b) Evening period of operation from 3:00 to 7:00 PM.

# ALAMEDA-80

Contra Costa County Line to Powell Street

## Westbound - A.M.

Typical data for 2009 <sup>(5)</sup>

	PEAK PERIOD <sup>(4)</sup>		PEAK HOUR	
	6:00 - 10:00 AM		7:00 - 8:00 AM	
VEHICLES	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	217	68	48	21
Buses	71	39	14	18
Carpools <sup>(1)</sup>	4436	198	1393	203
Hybrid	536	130	127	31
Vanpools	78	20	8	6
Single Occ. <sup>(2)</sup>	—	27785	—	7063
Violators	361	—	78	—
<b>TOTAL</b>	<b>5699</b>	<b>28240</b>	<b>1668</b>	<b>7342</b>
PERSONS	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	217	68	48	21
Buses	2485	1365	490	630
Carpools <sup>(1)</sup>	12964	1357	4109	558
Hybrid	536	130	127	31
Vanpools	780	200	80	60
Single Occ. <sup>(2)</sup>	—	29726	—	7659
Violators	471	—	96	—
<b>TOTAL</b>	<b>17453</b>	<b>32846</b>	<b>4950</b>	<b>8959</b>
RATES				
HOV Lane occupancy rate	3.1 persons/veh		3.0 persons/veh	
Mixed Flow occupancy rate	1.2 persons/veh		1.2 persons/veh	
Overall occupancy (incl. buses)	1.5 persons/veh		1.5 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	6.3 %		4.7 %	

**NOTES:** (1) 3 or more persons per vehicle & 2 - seater vehicles with 2 persons.

(2) Mixed flow lanes only.

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$

(4) HOV lane in operation from 5:00 to 10:00 A.M.

(5) Observations conducted 5/27/09 at Ashby Avenue Interchange.

# ALAMEDA-80

I-880 Viaduct to Contra Costa County Line

## Eastbound - P.M.

Typical data for 2009<sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup> 3:00 - 7:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	256	49	84	13
Buses	90	26	30	1
Carpools <sup>(1)</sup>	2938	757	818	155
Hybrid	407	411	133	94
Vanpools	108	15	28	3
1 and 2 Occ. <sup>(2)</sup>	—	23371	—	5916
Violators	168	—	30	—
<b>TOTAL</b>	<b>3967</b>	<b>24629</b>	<b>1123</b>	<b>6182</b>

PERSONS	PEAK PERIOD <sup>(4)</sup> 3:00 - 7:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	256	49	84	13
Buses	3150	910	1050	35
Carpools <sup>(1)</sup>	8457	1946	2391	408
Hybrid	407	411	133	94
Vanpools	1080	150	280	30
1 and 2 Occ. <sup>(2)</sup>	—	25962	—	6517
Violators	215	—	38	—
<b>TOTAL</b>	<b>13565</b>	<b>29428</b>	<b>3976</b>	<b>7097</b>

RATES	PEAK PERIOD <sup>(4)</sup> 3:00 - 7:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	3.4 persons/veh		3.5 persons/veh	
Mixed Flow occupancy rate	1.2 persons/veh		1.1 persons/veh	
Overall occupancy (incl. buses)	1.5 persons/veh		1.5 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	4.2 %		2.7 %	

**NOTES:** (1) 3 or more persons per vehicle & 2 - seater vehicles with 2 persons.

(2) Mixed flow lanes only.

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$

(4) HOV lane in operation from 3:00 to 7:00 P.M.

(5) Observations conducted 10/6/09 at Ashby Avenue Interchange.

# ALAMEDA-80

Contra Costa County Line to Powell Street

## Violation History

Westbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
<b>A.M. PEAK</b>	Wed May 27, 2009	6:00 - 10:00 AM	5699	6.3%
	Tue Jun 3, 2008	6:00 - 10:00 AM	5351	8.4%
	Wed May 16, 2007	6:00 - 10:00 AM	5709	11.1%
	Thu May 25, 2006	6:00 - 10:00 AM	5114	9.2%
	Wed Nov 16, 2005	7:00 - 10:00 AM	3907	9.0%
	Wed Nov 17, 2004	7:00 - 10:00 AM	3734	7.9%
	Tue Jun 10, 2003	6:00 - 10:00 AM	5181	4.4%
	Wed May 8, 2002	6:00 - 10:00 AM	5414	8.7%
	Wed May 16, 2001	6:00 - 10:00 AM	5289	13.8%
	Thu Oct 5, 2000	7:00 - 10:00 AM	3184	18.5%
	Thu Apr 15, 1999	7:00 - 10:00 AM	3156	11.0%
<b>P.M. PEAK</b>	Year 2009	-	-	-
	Year 2008	-	-	-
	Year 2007	-	-	-
	Year 2006	-	-	-
	Year 2005	-	-	-
	Year 2004	-	-	-
	Year 2003	-	-	-
	Thu May 9, 2002	3:00 - 7:00 PM	3102	18.9%
	Thu May 10, 2001	3:00 - 7:00 PM	1936	24.4%
	Thu Jun 1, 2000	3:00 - 7:00 PM	2593	25.9%
	Thu Apr 15, 1999	3:00 - 7:00 PM	2710	21.4%

**NOTES:** (a) Morning period of operation from 5:00 to 10:00 AM  
(b) Evening period of operation from 3:00 to 7:00 PM.  
(c) Data was not collected in 2009 for off-peak directions.

# ALAMEDA-80

I-880 Viaduct to Contra Costa County Line

## Violation History

Eastbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
<b>A.M. PEAK</b>	Year 2009	-	-	-
	Year 2008	-	-	-
	Year 2007	-	-	-
	Year 2006	-	-	-
	Year 2005	-	-	-
	Year 2004	-	-	-
	Year 2003	-	-	-
	Wed Jun 5, 2002	6:00 - 10:00 PM	677	17.6%
	Wed May 30, 2001	6:00 - 10:00 PM	606	21.5%
	Tue Dec 19, 2000	7:00 - 10:00 PM	221	7.7%
	Tue Apr 20, 1999	7:00 - 10:00 PM	531	20.9%
<b>P.M. PEAK</b>	Tue Oct 6, 2009	3:00 - 7:00 PM	3967	4.2%
	Wed Oct 22, 2008	3:00 - 7:00 PM	4809	8.8%
	Wed May 16, 2007	3:00 - 7:00 PM	4709	7.9%
	Wed May 10, 2006	3:00 - 7:00 PM	5415	10.3%
	Tue May 17, 2005	3:00 - 7:00 PM	5048	14.7%
	Wed Nov 17, 2004	3:00 - 5:00 PM	1995	21.5%
	Thu May 29, 2003	3:00 - 7:00 PM	4225	9.3%
	Thu May 16, 2002	3:00 - 7:00 PM	4535	2.7%
	Thu Sep 27, 2001	3:00 - 7:00 PM	4655	6.5%
	Thu Sep 14, 2000	3:00 - 7:00 PM	4415	3.4%
	Wed Oct 20, 1999	3:00 - 7:00 PM	4287	1.3%

**NOTES:** (a) Morning period of operation from 5:00 to 10:00 AM  
(b) Evening period of operation from 3:00 to 7:00 PM  
(c) Data was not collected in 2009 for off-peak direction



# ALAMEDA-84

I-880 to Dumbarton Bridge Toll Plaza

## Westbound - P.M.

Typical data for 2009 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup>		PEAK HOUR	
	3:00 - 6:00 PM		5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	18	7	8	1
Buses	21	4	6	0
Carpools <sup>(1)</sup>	969	240	344	62
Vanpools	8	0	4	0
Hybrid/Single Occ. <sup>(2)</sup>	31	2765	13	981
Violators	5	—	0	—
<b>TOTAL</b>	1052	3016	375	1044
PERSONS	HOV Lane		Mixed Flow Lanes	
	HOV Lane		Mixed Flow Lanes	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	18	7	8	1
Buses	735	140	210	0
Carpools <sup>(1)</sup>	2083	510	740	130
Vanpools	80	0	40	0
Hybrid/Single Occ. <sup>(2)</sup>	—	2765	—	981
Violators	36	—	13	—
<b>TOTAL</b>	2952	3422	1011	1112
RATES	HOV Lane		Mixed Flow Lanes	
	HOV Lane		Mixed Flow Lanes	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.8 persons/veh		2.7 persons/veh	
Mixed Flow occupancy rate	1.1 persons/veh		1.1 persons/veh	
Overall occupancy (incl. buses)	1.6 persons/veh		1.5 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	0.5 %		0.0 %	

**NOTES:** <sup>(1)</sup> Two or more persons per vehicle.

<sup>(2)</sup> Hybrid HOV lane only/Single and two Occupancy mixed flow lanes only.

<sup>(3)</sup> Violation rate =  $\frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$

<sup>(4)</sup> HOV lane in operation from 3:00 to 6:00 P.M.

<sup>(5)</sup> Observations conducted 04/30/09 at Dumbarton Bridge Toll Plaza.

# ALAMEDA-84

I-880 to Dumbarton Bridge Toll Plaza

## Westbound - A.M.

Typical data for 2009 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup> 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	82	0	29	0
Buses	31	0	13	0
Carpools <sup>(1)</sup>	2494	33	1097	10
Vanpools	5	5	3	2
Hybrid/Single Occ. <sup>(2)</sup>	129	9271	54	3582
Violators	0	—	0	—
<b>TOTAL</b>	<b>2741</b>	<b>9309</b>	<b>1196</b>	<b>3594</b>
PERSONS	HOV Lane		Mixed Flow Lanes	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	82	0	29	0
Buses	1085	0	455	0
Carpools <sup>(1)</sup>	5134	67	2258	20
Vanpools	50	50	30	20
Hybrid/Single Occ. <sup>(2)</sup>	129	9271	54	3582
Violators	—	—	0	—
<b>TOTAL</b>	<b>6480</b>	<b>9388</b>	<b>2826</b>	<b>3622</b>
RATES	HOV Lane		Mixed Flow Lanes	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.4 persons/veh		2.4 persons/veh	
Mixed Flow occupancy rate	1.0 persons/veh		1.0 persons/veh	
Overall occupancy (incl. buses)	1.3 persons/veh		1.3 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	0.0 %		0.0 %	

**NOTES:** <sup>(1)</sup> Two or more persons per vehicle.

<sup>(2)</sup> Hybrid HOV lane only/Single and two Occupancy mixed flow lanes only.

<sup>(3)</sup> Violation rate =  $\frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$

<sup>(4)</sup> HOV lane in operation from 5:00 to 10:00 A.M.

<sup>(5)</sup> Observations conducted 04/30/09 at Dumbarton Bridge Toll Plaza.

# ALAMEDA-84

I-880 to Dumbarton Bridge Toll Plaza

## Violation History

Westbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
<b>A.M. PEAK</b>	Thu Apr 30, 2009	6:00 - 9:00 AM	2741	0.0%
	Thu Oct 23, 2008	6:00 - 9:00 AM	3465	0.0%
	Wed Nov 7, 2007	6:00 - 9:00 AM	3114	0.8%
	Wed Sep 27, 2006	6:00 - 9:00 AM	3045	0.6%
	Thu Oct 20, 2005	6:00 - 9:00 AM	2769	1.4%
	Thu Oct 14, 2004	6:00 - 9:00 AM	2495	0.6%
	Thu Jun 5, 2003	6:00 - 9:00 AM	2496	0.9%
	Tue May 14, 2002	6:00 - 9:00 AM	3044	3.5%
	Tue Apr 10, 2001	6:00 - 10:00 AM	4480	3.1%
	Thu Oct 19, 2000	6:00 - 9:00 AM	4106	3.5%
	Tue Mar 16, 1999	6:00 - 9:00 AM	3906	5.7%
<b>P.M. PEAK</b>	Thu Apr 30, 2009	3:00 - 6:00 PM	1052	0.5%
	Thu May 1, 2008	3:00 - 6:00 PM	1045	1.1%
	Wed Apr 4, 2007	3:00 - 6:00 PM	1148	3.7%
	Tue Sep 26, 2006	3:00 - 6:00 PM	1035	1.0%
	Tue May 10, 2005	3:00 - 6:00 PM	1032	1.1%
	Year 2004	-	-	-
	Thu May 8, 2003	3:00 - 6:00 PM	995	1.1%
	Wed Jun 12, 2002	3:00 - 6:00 PM	959	1.8%
	Tue Mar 20, 2001	3:00 - 6:00 PM	919	2.2%
	Thu Oct 19, 2000	3:00 - 6:00 PM	849	3.1%
	Wed Sep 22, 1999	3:00 - 6:00 PM	949	2.0%

**NOTES:** (a) Morning period of operation from 5:00 to 10:00 AM.  
(b) Evening period of operation from 3:00 to 6:00 PM.  
(c) Data was not collected in 2004 for off-peak direction

# ALAMEDA-92

Hesperian Boulevard to San Mateo Bridge Toll Plaza

## Westbound - A.M.

Typical data for 2009 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup> 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	43	8	24	3
Buses	7	0	2	0
Carpools <sup>(1)</sup>	2319	110	977	34
Vanpools	9	0	1	0
Hybrid/Single Occ. <sup>(2)</sup>	120	10507	44	3698
Violators	26	—	2	—
<b>TOTAL</b>	<b>2524</b>	<b>10625</b>	<b>1050</b>	<b>3735</b>

PERSONS	PEAK PERIOD <sup>(4)</sup> 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	43	8	24	3
Buses	245	0	70	0
Carpools <sup>(1)</sup>	4932	229	2034	71
Vanpools	90	0	10	0
Hybrid/Single Occ. <sup>(2)</sup>	120	10507	44	3698
Violators	26	—	2	—
<b>TOTAL</b>	<b>5456</b>	<b>10744</b>	<b>2184</b>	<b>3772</b>

RATES	PEAK PERIOD <sup>(4)</sup> 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.2 persons/veh		2.1 persons/veh	
Mixed Flow occupancy rate	1.0 persons/veh		1.0 persons/veh	
Overall occupancy (incl. buses)	1.2 persons/veh		1.2 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	1.0 %		0.2 %	

**NOTES:** <sup>(1)</sup> Two or more persons per vehicle.

<sup>(2)</sup> Hybrid HOV lane only/Single and two Occupancy mixed flow lanes only.

<sup>(3)</sup> Violation rate =  $\frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$

<sup>(4)</sup> HOV lane in operation from 5:00 to 10:00 A.M.

<sup>(5)</sup> Observations conducted 05/06/09 at San Mateo Bridge Toll Plaza.

# ALAMEDA-92

Hesperian Boulevard to San Mateo Bridge Toll Plaza

## Westbound - P.M.

Typical data for 2009 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup> 3:00 - 6:00 PM		PEAK HOUR 4:00 - 5:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	41	8	9	6
Buses	10	3	6	1
Carpools <sup>(1)</sup>	1260	341	435	124
Vanpools	22	3	13	0
Hybrid/Single Occ. <sup>(2)</sup>	30	5279	10	1802
Violators	21	—	2	—
<b>TOTAL</b>	<b>1384</b>	<b>5634</b>	<b>475</b>	<b>1933</b>

PERSONS	PEAK PERIOD <sup>(4)</sup> 3:00 - 6:00 PM		PEAK HOUR 4:00 - 5:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	41	8	9	6
Buses	350	105	210	35
Carpools <sup>(1)</sup>	2650	715	918	257
Vanpools	220	30	130	0
Hybrid/Single Occ. <sup>(2)</sup>	30	5279	10	1802
Violators	21	—	2	—
<b>TOTAL</b>	<b>3312</b>	<b>6137</b>	<b>1279</b>	<b>2100</b>

RATES	PEAK PERIOD <sup>(4)</sup> 3:00 - 6:00 PM		PEAK HOUR 4:00 - 5:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.4 persons/veh		2.7 persons/veh	
Mixed Flow occupancy rate	1.1 persons/veh		1.1 persons/veh	
Overall occupancy (incl. buses)	1.3 persons/veh		1.4 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	1.5 %		0.4 %	

**NOTES:** (1) Two or more persons per vehicle.

(2) Hybrid HOV lane only/Single and two Occupancy mixed flow lanes only.

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane}}{\text{Total no. of vehicles in HOV lane}} \times 100\%$

(4) HOV lane in operation from 3:00 to 6:00 P.M.

(5) Observations conducted 04/21/09 at San Mateo Bridge Toll Plaza.

# ALAMEDA-92

Hesperian Blvd. to West of San Mateo - Hayward Bridge Toll Plaza

## Violation History

Westbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
<b>A.M. PEAK</b>	Wed May 6, 2009	6:00 - 9:00 AM	2524	1.0%
	Thu Nov 20, 2008	6:00 - 9:00 AM	2799	0.0%
	Thu Mar 15, 2007	6:00 - 9:00 AM	2747	1.6%
	Wed Mar 8, 2006	6:00 - 9:00 AM	2452	1.3%
	Tue May 24, 2005	6:00 - 9:00 AM	2448	1.1%
	Wed Oct 13, 2004	6:00 - 9:00 AM	2218	2.3%
	Thu May 29, 2003	6:00 - 9:00 AM	2449	1.3%
	Tue Apr 30, 2002	6:00 - 9:00 AM	1834	3.9%
	Thu Sep 20, 2001	6:00 - 9:00 AM	2075	8.1%
	Tue Oct 24, 2000	6:00 - 9:00 AM	2480	8.2%
	Wed Mar 17, 1999	6:00 - 9:00 AM	2534	9.4%
<b>P.M. PEAK</b>	Tue Apr 21, 2009	3:00 - 6:00 PM	1384	1.5%
	Thu May 15, 2008	3:00 - 6:00 PM	1479	1.0%
	Thu Mar 15, 2007	3:00 - 6:00 PM	1602	0.7%
	Thu Sep 21, 2006	3:00 - 6:00 PM	1518	2.0%
	Tue Sep 13, 2005	3:00 - 6:00 PM	1318	0.5%
	Year 2004	-	-	-
	Wed Apr 9, 2003	3:00 - 6:00 PM	1240	1.5%
	Tue Jun 11, 2002	3:00 - 6:00 PM	1275	4.4%
	Wed Oct 3, 2001	3:00 - 6:00 PM	1177	5.4%
	Thu Apr 13, 2000	3:00 - 6:00 PM	1243	1.4%
	Thu Mar 4, 1999	3:00 - 6:00 PM	1128	3.2%

**NOTES:** (a) Morning period of operation from 5:00 to 10:00 AM.  
(b) Evening period of operation from 3:00 to 6:00 PM.  
(c) Data was not collected in 2004 for off-peak direction

# ALAMEDA-580

Livermore to W/O Greenville

## Eastbound - P.M.

Typical data for 2009 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup> 3:00 - 6:00 PM		PEAK HOUR 3:00 - 4:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	56	50	19	20
Buses	9	11	2	8
Carpools <sup>(1)</sup>	1452	299	485	144
Vanpools	33	5	16	2
Hybrid/Single Occ. <sup>(2)</sup>	12	13293	2	4588
Violators	54	—	14	—
<b>TOTAL</b>	<b>1616</b>	<b>13658</b>	<b>524</b>	<b>4762</b>

PERSONS	HOV Lane		Mixed Flow Lanes	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	56	50	19	20
Buses	315	385	70	280
Carpools <sup>(1)</sup>	2999	612	970	620
Vanpools	330	50	160	20
Hybrid/Single Occ. <sup>(2)</sup>	12	13293	2	4588
Violators	54	—	14	—
<b>TOTAL</b>	<b>3766</b>	<b>14390</b>	<b>1235</b>	<b>5528</b>

RATES	HOV Lane		Mixed Flow Lanes	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	1.1 persons/veh		1.2 persons/veh	
Mixed Flow occupancy rate	1.2 persons/veh		1.3 persons/veh	
Overall occupancy (incl. buses)	3.3 %		2.7 %	
Violation rate <sup>(3)</sup> (HOV Lane)	3.3 %		2.7 %	

- NOTES:** (1) Two or more persons per vehicle.  
 (2) Hybrid HOV lane only/Single and two Occupancy mixed flow lanes only.  
 (3) Violation rate =  $\frac{\text{no. of violators in HOV lane}}{\text{Total no. of vehicles in HOV lane}} \times 100\%$   
 (4) HOV lane in operation from 5:00 to 10:00 A.M.  
 (5) Observations conducted 10/06/09 at Vasco Rd. I/C.

# ALAMEDA-580

Livermore I/C to W/O Greenville Rd.

## Violation History

Eastbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
<b>A.M. PEAK</b>	Year 2009	-	-	-
<b>P.M. PEAK</b>	Tue Oct 6, 2009	3:00 - 7:00 PM	1616	3.3%

**NOTES:** (a) Morning period of operation from 5:00 to 10:00 AM.  
(b) Evening period of operation from 3:00 to 7:00 PM.  
(c) Data was not collected in 2009 for off-peak direction



# ALAMEDA-680

Route 84 to ALA/SCL Co. Line

## Southbound - A.M.

Typical data for 2009 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup>		PEAK HOUR	
	6:00 - 9:00 AM		7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	96	6	40	0
Buses	2	1	0	0
Carpools <sup>(1)</sup>	2825	142	964	56
Vanpools	7	0	2	0
Hybrid/Single Occ. <sup>(2)</sup>	205	15958	81	5565
Violators	8	—	3	—
<b>TOTAL</b>	<b>3143</b>	<b>16107</b>	<b>1090</b>	<b>5621</b>
PERSONS	HOV Lane		Mixed Flow Lanes	
	HOV Lane		Mixed Flow Lanes	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	96	6	40	0
Buses	70	35	0	0
Carpools <sup>(1)</sup>	5742	304	1959	121
Vanpools	70	0	20	0
Hybrid/Single Occ. <sup>(2)</sup>	205	15958	81	5565
Violators	8	—	3	—
<b>TOTAL</b>	<b>6191</b>	<b>16303</b>	<b>2103</b>	<b>5686</b>
RATES	HOV Lane		Mixed Flow Lanes	
	HOV Lane		Mixed Flow Lanes	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.0 persons/veh		1.9 persons/veh	
Mixed Flow occupancy rate	1.0 persons/veh		1.0 persons/veh	
Overall occupancy (incl. buses)	1.2 persons/veh		1.2 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	0.3 %		0.3 %	

**NOTES:** <sup>(1)</sup> Two or more persons per vehicle.

<sup>(2)</sup> Hybrid HOV lane only/Single and two Occupancy mixed flow lanes only.

<sup>(3)</sup> Violation rate =  $\frac{\text{no. of violators in HOV lane}}{\text{Total no. of vehicles in HOV lane}} \times 100\%$

<sup>(4)</sup> HOV lane in operation from 5:00 to 9:00 A.M.

<sup>(5)</sup> Observations conducted 11/12/09 at Vargas Rd I/C.

# ALAMEDA-680

Route 84 to ALA/SCL CO. Line

# Southbound - P.M.

Typical data for 2009 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup> 3:00 - 6:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	40	21	13	9
Buses	0	12	0	2
Carpools <sup>(1)</sup>	843	1038	276	392
Vanpools	18	24	0	8
Hybrid/Single Occ. <sup>(2)</sup>	23	8989	11	3273
Violators	56	—	15	—
<b>TOTAL</b>	<b>980</b>	<b>10084</b>	<b>315</b>	<b>3684</b>
PERSONS	PEAK PERIOD <sup>(4)</sup> 3:00 - 6:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	40	21	13	9
Buses	0	420	0	70
Carpools <sup>(1)</sup>	1795	2258	598	831
Vanpools	180	240	0	80
Hybrid/Single Occ. <sup>(2)</sup>	23	8989	11	3273
Violators	56	—	15	—
<b>TOTAL</b>	<b>2094</b>	<b>11928</b>	<b>637</b>	<b>4263</b>
RATES	PEAK PERIOD <sup>(4)</sup> 3:00 - 6:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.1 persons/veh		2.0 persons/veh	
Mixed Flow occupancy rate	1.2 persons/veh		1.2 persons/veh	
Overall occupancy (incl. buses)	1.3 persons/veh		1.2 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	5.7 %		4.8 %	

**NOTES:** <sup>(1)</sup> Two or more persons per vehicle.

<sup>(2)</sup> Hybrid HOV lane only/Single and two Occupancy mixed flow lanes only.

<sup>(3)</sup> Violation rate =  $\frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$

<sup>(4)</sup> HOV lane in operation from 3:00 to 7:00 P.M.

<sup>(5)</sup> Observations conducted 05/12/09 at Vargas Rd. I/C.

# ALAMEDA - 680

Route 84 to ALA/SCL Co. Line

## Violation History

Southbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
<b>A.M. PEAK</b>	Thu Nov 12, 2009	6:00 - 9:00 AM	3143	<b>0.3%</b>
	Wed Oct 22, 2008	6:00 - 9:00 AM	2549	<b>1.5%</b>
	Wed Sep 19, 2007	6:00 - 9:00 AM	2454	<b>3.3%</b>
	Tue Jun 13, 2006	6:00 - 9:00 AM	2121	<b>3.0%</b>
	Tue Oct 4, 2005	6:00 - 9:00 AM	2133	<b>3.6%</b>
	Thu Dec 2, 2004	6:00 - 9:00 AM	1970	<b>9.8%</b>
	Thu Oct 9, 2003	6:00 - 9:00 AM	2138	<b>0.2%</b>
	Thu Dec 5, 2002	6:00 - 9:00 AM	1098	<b>4.4%</b>
<b>P.M. PEAK</b>	Tue May 12, 2009	3:00 - 6:00 PM	980	<b>5.7%</b>
	Tue Dec 9, 2008	3:00 - 6:00 PM	1052	<b>2.6%</b>
	Tue Jun 5, 2007	3:00 - 6:00 PM	1481	<b>3.5%</b>
	Tue Sep 19, 2006	3:00 - 6:00 PM	1669	<b>1.1%</b>
	Thu Nov 3, 2005	3:00 - 6:00 PM	1752	<b>1.0%</b>
	Year 2004	-	-	-
	Tue Jun 3, 2003	3:00 - 6:00 PM	1149	<b>4.4%</b>

**NOTES:** (a) Morning period of operation from 5:00 to 9:00 AM.  
(b) Evening period of operation from 3:00 to 7:00 PM.  
(c) Data was not collected in 2004 for off-peak direction

# ALAMEDA-880

Marina Boulevard to Whipple Road

## Southbound - A.M.

Typical data for 2009 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup>		PEAK HOUR	
	6:00 - 9:00 AM		7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	82	7	30	0
Buses	12	19	5	4
Carpools <sup>(1)</sup>	2566	200	1048	92
Vanpools	1	16	0	7
Hybrid/Single Occ. <sup>(2)</sup>	287	11695	109	4381
Violators	185	—	84	—
<b>TOTAL</b>	<b>3133</b>	<b>11937</b>	<b>1276</b>	<b>4484</b>
PERSONS	HOV Lane		Mixed Flow Lanes	
	HOV Lane		Mixed Flow Lanes	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	82	7	30	0
Buses	420	665	175	140
Carpools <sup>(1)</sup>	5152	437	2103	217
Vanpools	10	160	0	70
Hybrid/Single Occ. <sup>(2)</sup>	287	11695	109	4381
Violators	185	—	84	—
<b>TOTAL</b>	<b>6136</b>	<b>12964</b>	<b>2501</b>	<b>4808</b>
RATES	HOV Lane		Mixed Flow Lanes	
	HOV Lane		Mixed Flow Lanes	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.0	persons/veh	2.0	persons/veh
Mixed Flow occupancy rate	1.1	persons/veh	1.1	persons/veh
Overall occupancy (incl. buses)	1.3	persons/veh	1.3	persons/veh
Violation rate <sup>(3)</sup> (HOV Lane)	5.9	%	6.6	%

- NOTES:** (1) Two or more persons per vehicle.  
(2) Hybrid HOV lane only/Single and two Occupancy mixed flow lanes only.  
(3) Violation rate =  $\frac{\text{no. of violators in HOV lane}}{\text{Total no. of vehicles in HOV lane}} \times 100\%$   
(4) HOV lane in operation from 5:00 to 9:00 A.M.  
(5) Observations conducted 10/21/09 at Tennyson Road I/C.

# ALAMEDA-880

Marina Boulevard to Whipple Road

## Southbound - P.M.

Typical data for 2009 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup>		PEAK HOUR	
	3:00 - 6:00 PM		3:00 - 4:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	82	0	23	0
Buses	23	13	12	7
Carpools <sup>(1)</sup>	2865	696	915	270
Vanpools	34	34	7	8
Hybrid/Single Occ. <sup>(2)</sup>	91	13336	23	4511
Violators	37	—	22	—
<b>TOTAL</b>	<b>3132</b>	<b>14079</b>	<b>1002</b>	<b>4796</b>
PERSONS	HOV Lane		Mixed Flow Lanes	
	HOV Lane		Mixed Flow Lanes	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	82	0	23	0
Buses	805	455	420	245
Carpools <sup>(1)</sup>	6453	1472	2073	571
Vanpools	340	340	70	80
Hybrid/Single Occ. <sup>(2)</sup>	91	13336	23	4511
Violators	37	—	22	—
<b>TOTAL</b>	<b>7808</b>	<b>15603</b>	<b>2631</b>	<b>5407</b>
RATES	HOV Lane		Mixed Flow Lanes	
	HOV Lane		Mixed Flow Lanes	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.5 persons/veh		2.6 persons/veh	
Mixed Flow occupancy rate	1.1 persons/veh		1.1 persons/veh	
Overall occupancy (incl. buses)	1.4 persons/veh		1.4 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	1.2 %		2.2 %	

**NOTES:** (1) Two or more persons per vehicle.

(2) Hybrid HOV lane only/Single and two Occupancy mixed flow lanes only.

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane}}{\text{Total no. of vehicles in HOV lane}} \times 100\%$

(4) HOV lane in operation from 3:00 to 7:00 P.M.

(5) Observations conducted 03/26/09 at Tennyson Road I/C.

# ALAMEDA-880

Whipple Road to South of Route 238

## Northbound - A.M.

Typical data for 2009 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup>		PEAK HOUR	
	6:00 - 9:00 AM		8:00 - 9:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	50	5	12	0
Buses	25	8	13	4
Carpools <sup>(1)</sup>	2649	182	1120	44
Vanpools	18	3	7	0
Hybrid/Single Occ. <sup>(2)</sup>	61	11217	28	4006
Violators	30	—	2	—
<b>TOTAL</b>	<b>2833</b>	<b>11415</b>	<b>1182</b>	<b>4054</b>
PERSONS	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
	50	5	12	0
	875	280	455	140
Carpools <sup>(1)</sup>	5350	400	2251	97
Vanpools	180	30	70	0
Hybrid/Single Occ. <sup>(2)</sup>	61	11217	28	4006
Violators	30	—	2	—
<b>TOTAL</b>	<b>6546</b>	<b>11932</b>	<b>2818</b>	<b>4243</b>
RATES	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
	2.3 persons/veh	1.0 persons/veh	2.4 persons/veh	1.0 persons/veh
	1.0 persons/veh	1.3 persons/veh	1.0 persons/veh	1.3 persons/veh
Overall occupancy (incl. buses)	1.3 persons/veh	1.3 persons/veh	1.3 persons/veh	1.3 persons/veh
Violation rate <sup>(3)</sup> (HOV Lane)	1.1 %	—	0.2 %	—

**NOTES:** (1) Two or more persons per vehicle.

(2) Hybrid HOV lane only/Single and two Occupancy mixed flow lanes only.

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane}}{\text{Total no. of vehicles in HOV lane}} \times 100\%$

(4) HOV lane in operation from 5:00 to 9:00 A.M.

(5) Observations conducted 05/13/09 at Tennyson Road I/C.

# ALAMEDA-880

Whipple Road to South of Route 238

## Northbound - P.M.

Typical data for 2009 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup> 3:00 - 6:00 PM		PEAK HOUR 4:00 - 5:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	93	11	33	6
Buses	36	20	14	8
Carpools <sup>(1)</sup>	3485	619	1198	229
Vanpools	34	0	10	0
Hybrid/Single Occ. <sup>(2)</sup>	186	11255	66	3782
Violators	130	—	42	—
<b>TOTAL</b>	<b>3964</b>	<b>11905</b>	<b>1363</b>	<b>4025</b>

PERSONS	PEAK PERIOD <sup>(4)</sup> 3:00 - 6:00 PM		PEAK HOUR 4:00 - 5:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	93	11	33	6
Buses	1260	700	490	280
Carpools <sup>(1)</sup>	7534	1316	2614	483
Vanpools	340	0	100	0
Hybrid/Single Occ. <sup>(2)</sup>	186	11255	66	3782
Violators	130	—	42	—
<b>TOTAL</b>	<b>9543</b>	<b>13282</b>	<b>3345</b>	<b>4551</b>

RATES	PEAK PERIOD <sup>(4)</sup> 3:00 - 6:00 PM		PEAK HOUR 4:00 - 5:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.4 persons/veh		2.5 persons/veh	
Mixed Flow occupancy rate	1.1 persons/veh		1.1 persons/veh	
Overall occupancy (incl. buses)	1.4 persons/veh		1.5 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	3.3 %		3.1 %	

**NOTES:** (1) Two or more persons per vehicle.

(2) Hybrid HOV lane only/Single and two Occupancy mixed flow lanes only.

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane}}{\text{Total no. of vehicles in HOV lane}} \times 100\%$

(4) HOV lane in operation from 3:00 to 7:00 P.M.

(5) Observations conducted 06/10/09 at Tennyson Road I/C.

# ALAMEDA-880

Marina Boulevard to Whipple Road

## Violation History

Southbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
<b>A.M. PEAK</b>	Wed Oct 21, 2009	6:00 - 9:00 AM	3133	5.9%
	Wed Apr 30, 2008	6:00 - 9:00 AM	2539	2.6%
	Thu Mar 22, 2007	6:00 - 9:00 AM	2923	3.9%
	Wed Oct 4, 2006	6:00 - 9:00 AM	2361	3.2%
	Wed Mar 30, 2005	6:00 - 9:00 AM	2278	2.9%
	Wed Nov 3, 2004	6:00 - 9:00 AM	2723	3.6%
	Tue Oct 7, 2003	6:00 - 9:00 AM	3049	3.7%
	Tue Jun 11, 2002	6:00 - 9:00 AM	3638	7.5%
	Wed Mar 21, 2001	6:00 - 9:00 AM	3971	5.2%
	Tue May 9, 2000	6:00 - 9:00 AM	3661	4.6%
	Thu Mar 4, 1999	6:00 - 9:00 AM	3012	5.7%
<b>P.M. PEAK</b>	Thu Mar 26, 2009	3:00 - 6:00 PM	3132	1.2%
	Tue Oct 14, 2008	3:00 - 6:00 PM	3155	5.9%
	Thu Oct 11, 2007	3:00 - 6:00 PM	3010	1.8%
	Thu Sep 28, 2006	3:00 - 6:00 PM	2494	1.5%
	Tue Nov 8, 2005	3:00 - 6:00 PM	3053	2.0%
	Wed Dec 1, 2004	3:00 - 6:00 PM	3036	2.6%
	Wed Jun 4, 2003	3:00 - 6:00 PM	3708	6.0%
	Wed Jun 5, 2002	3:00 - 6:00 PM	3401	5.2%
	Thu Apr 26, 2001	3:00 - 6:00 PM	3134	3.9%
	Tue May 9, 2000	3:00 - 6:00 PM	2484	5.6%
	Tue Mar 2, 1999	3:00 - 6:00 PM	2307	4.3%

**NOTES:** (a) Morning period of operation from 5:00 to 9:00 AM.  
(b) Evening period of operation from 3:00 to 7:00 PM.



# ALAMEDA-880

Whipple Road to South of Route 238

## Violation History

Northbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
<b>A.M. PEAK</b>	Wed May 13, 2009	6:00 - 9:00 AM	2833	1.1%
	Wed May 7, 2008	6:00 - 9:00 AM	2563	2.2%
	Wed Oct 3, 2007	6:00 - 9:00 AM	2485	0.3%
	Thu Dec 7, 2006	6:00 - 9:00 AM	2449	2.2%
	Thu Oct 6, 2005	6:00 - 9:00 AM	2735	2.0%
	Tue Nov 2, 2004	6:00 - 9:00 AM	2954	5.3%
	Thu May 22, 2003	6:00 - 9:00 AM	2920	1.4%
	Thu Sep 12, 2002	6:00 - 9:00 AM	2560	8.8%
	Thu Oct 11, 2001	6:00 - 9:00 AM	2212	5.2%
	Tue Nov 7, 2000	6:00 - 9:00 AM	1648	7.6%
	Tue Nov 2, 1999	6:00 - 9:00 AM	1845	8.1%
<b>P.M. PEAK</b>	Wed Jun 10, 2009	3:00 - 6:00 PM	3964	3.3%
	Tue Dec 2, 2008	3:00 - 6:00 PM	3522	1.7%
	Wed Sep 26, 2007	3:00 - 6:00 PM	3563	1.5%
	Tue Oct 24, 2006	3:00 - 6:00 PM	3203	1.1%
	Tue Apr 5, 2005	3:00 - 6:00 PM	3780	2.8%
	Tue Nov 30, 2004	3:00 - 6:00 PM	3422	1.6%
	Thu Oct 9, 2003	3:00 - 6:00 PM	3657	3.0%
	Wed May 8, 2002	3:00 - 6:00 PM	3878	8.4%
	Wed May 2, 2001	3:00 - 6:00 PM	4069	4.8%
	Thu Oct 5, 2000	3:00 - 6:00 PM	4433	6.4%
	Tue Nov 2, 1999	3:00 - 6:00 PM	2238	26.5%

**NOTES:** (a) Morning period of operation from 5:00 to 9:00 AM.  
(b) Evening period of operation from 3:00 to 7:00 PM.

# ALAMEDA-880

Whipple Road to Santa Clara County Line

## Southbound - A.M.

Typical data for 2009 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup>		PEAK HOUR	
	6:00 - 9:00 AM		7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	79	12	30	4
Buses	13	23	7	9
Carpools <sup>(1)</sup>	1921	128	699	71
Vanpools	29	3	7	1
Hybrid/Single Occ. <sup>(2)</sup>	143	14982	41	5486
Violators	0	—	0	—
<b>TOTAL</b>	<b>2185</b>	<b>15148</b>	<b>784</b>	<b>5571</b>
PERSONS	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
	79	12	30	4
	455	805	245	315
Motorcycles	79	12	30	4
Buses	455	805	245	315
Carpools <sup>(1)</sup>	3996	280	1487	153
Vanpools	290	30	70	10
Hybrid/Single Occ. <sup>(2)</sup>	143	14982	41	5486
Violators	0	—	0	—
<b>TOTAL</b>	<b>4963</b>	<b>16109</b>	<b>1873</b>	<b>5968</b>
RATES	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
	2.3 persons/veh	1.1 persons/veh	2.4 persons/veh	1.1 persons/veh
	1.2 persons/veh	1.2 persons/veh	1.2 persons/veh	1.2 persons/veh
HOV Lane occupancy rate	2.3 persons/veh	1.1 persons/veh	2.4 persons/veh	1.1 persons/veh
Mixed Flow occupancy rate	1.1 persons/veh	1.1 persons/veh	1.1 persons/veh	1.1 persons/veh
Overall occupancy (incl. buses)	1.2 persons/veh	1.2 persons/veh	1.2 persons/veh	1.2 persons/veh
Violation rate <sup>(3)</sup> (HOV Lane)	0.0 %	0.0 %	0.0 %	0.0 %

**NOTES:** (1) Two or more persons per vehicle.

(2) Hybrid HOV lane only/Single and two Occupancy mixed flow lanes only.

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane}}{\text{Total no. of vehicles in HOV lane}} \times 100\%$

(4) HOV lane in operation from 5:00 to 9:00 A.M.

(5) Observations conducted 03/19/09 at Mowry I/C.

# ALAMEDA-880

Whipple Road to Santa Clara County Line

## Southbound - P.M.

Typical data for 2009 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup>		PEAK HOUR	
	3:00 - 6:00 PM		4:00 - 5:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	63	11	18	3
Buses	3	6	0	1
Carpools <sup>(1)</sup>	2797	663	972	220
Vanpools	11	20	6	5
Hybrid/Single Occ. <sup>(2)</sup>	179	10496	70	3872
Violators	10	—	4	—
<b>TOTAL</b>	<b>3063</b>	<b>11196</b>	<b>1070</b>	<b>4101</b>
PERSONS	HOV Lane		Mixed Flow Lanes	
	HOV Lane		Mixed Flow Lanes	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	63	11	18	3
Buses	105	210	0	35
Carpools <sup>(1)</sup>	5682	1431	1979	477
Vanpools	110	200	60	50
Hybrid/Single Occ. <sup>(2)</sup>	179	10496	70	3872
Violators	10	—	4	—
<b>TOTAL</b>	<b>6149</b>	<b>12348</b>	<b>2131</b>	<b>4437</b>
RATES	HOV Lane		Mixed Flow Lanes	
	HOV Lane		Mixed Flow Lanes	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.0 persons/veh		2.0 persons/veh	
Mixed Flow occupancy rate	1.1 persons/veh		1.1 persons/veh	
Overall occupancy (incl. buses)	1.3 persons/veh		1.3 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	0.3 %		0.4 %	

- NOTES:** (1) Two or more persons per vehicle.  
(2) Hybrid HOV lane only/Single and two Occupancy mixed flow lanes only.  
(3) Violation rate =  $\frac{\text{no. of violators in HOV lane}}{\text{Total no. of vehicles in HOV lane}} \times 100\%$   
(4) HOV lane in operation from 3:00 to 7:00 P.M.  
(5) Observations conducted 10/21/09 at Mowry I/C.

# ALAMEDA-880

Santa Clara County Line to Whipple Road

## Northbound - A.M.

Typical data for 2009 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup> 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	30	9	16	2
Buses	6	25	2	8
Carpools <sup>(1)</sup>	930	765	373	309
Vanpools	5	5	1	1
Hybrid/Single Occ. <sup>(2)</sup>	60	8791	27	3098
Violators	25	—	5	—
<b>TOTAL</b>	<b>1056</b>	<b>9595</b>	<b>424</b>	<b>3418</b>

PERSONS	PEAK PERIOD <sup>(4)</sup> 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	30	9	16	2
Buses	210	875	70	280
Carpools <sup>(1)</sup>	1918	1591	770	644
Vanpools	50	50	10	10
Hybrid/Single Occ. <sup>(2)</sup>	60	8791	27	3098
Violators	25	—	5	—
<b>TOTAL</b>	<b>2293</b>	<b>11316</b>	<b>898</b>	<b>4034</b>

RATES	PEAK PERIOD <sup>(4)</sup> 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.2 persons/veh		2.1 persons/veh	
Mixed Flow occupancy rate	1.2 persons/veh		1.2 persons/veh	
Overall occupancy (incl. buses)	1.3 persons/veh		1.3 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	2.4 %		1.2 %	

**NOTES:** (1) Two or more persons per vehicle.

(2) Hybrid HOV lane only/Single and two Occupancy mixed flow lanes only.

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane}}{\text{Total no. of vehicles in HOV lane}} \times 100\%$

(4) HOV lane in operation from 5:00 to 9:00 A.M.

(5) Observations conducted 06/10/09 at Mowry I/C.

# ALAMEDA-880

SCL County Line to Whipple Road

## Northbound - P.M.

Typical data for 2009 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup> 3:00 - 6:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	80	14	33	7
Buses	19	12	9	3
Carpools <sup>(1)</sup>	2298	938	920	256
Vanpools	4	5	2	1
Hybrid/Single Occ. <sup>(2)</sup>	137	12156	83	4197
Violators	49	—	30	—
<b>TOTAL</b>	<b>2587</b>	<b>13125</b>	<b>1077</b>	<b>4464</b>

PERSONS	PEAK PERIOD <sup>(4)</sup> 3:00 - 6:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	80	14	33	7
Buses	665	420	315	105
Carpools <sup>(1)</sup>	4729	1983	1903	541
Vanpools	40	50	20	10
Hybrid/Single Occ. <sup>(2)</sup>	137	12156	83	4197
Violators	49	—	30	—
<b>TOTAL</b>	<b>5700</b>	<b>14623</b>	<b>2384</b>	<b>4860</b>

RATES	PEAK PERIOD <sup>(4)</sup> 3:00 - 6:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.2 persons/veh		2.2 persons/veh	
Mixed Flow occupancy rate	1.1 persons/veh		1.1 persons/veh	
Overall occupancy (incl. buses)	1.3 persons/veh		1.3 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	1.9 %		2.8 %	

**NOTES:** (1) Two or more persons per vehicle.

(2) Hybrid HOV lane only/Single and two Occupancy mixed flow lanes only.

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane}}{\text{Total no. of vehicles in HOV lane}} \times 100\%$

(4) HOV lane in operation from 3:00 to 7:00 P.M.

(5) Observations conducted 05/06/09 at Mowry I/C.

# ALAMEDA-880

Whipple Road to Santa Clara County Line

## Violation History

Southbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
<b>A.M. PEAK</b>	Thu Mar 19, 2009	6:00 - 9:00 AM	2185	0.0%
	Wed Oct 8, 2008	6:00 - 9:00 AM	2538	0.2%
	Wed Nov 14, 2007	6:00 - 9:00 AM	2736	3.5%
	Tue Dec 5, 2006	6:00 - 9:00 AM	2509	12.0%
	Wed Oct 26, 2005	6:00 - 9:00 AM	1948	3.0%
	Tue Nov 9, 2004	6:00 - 9:00 AM	2355	2.7%
	Tue Jun 3, 2003	6:00 - 9:00 AM	2418	3.5%
	Tue Sep 24, 2002	6:00 - 9:00 AM	2525	3.2%
	Tue Mar 27, 2001	6:00 - 9:00 AM	3423	4.8%
	Tue Mar 28, 2000	6:00 - 9:00 AM	2438	6.2%
	Wed May 19, 1999	6:00 - 9:00 AM	2118	3.7%
<b>P.M. PEAK</b>	Wed Oct 21, 2009	3:00 - 6:00 PM	3063	0.3%
	Tue Oct 7, 2008	3:00 - 6:00 PM	2283	2.0%
	Wed May 16, 2007	3:00 - 6:00 PM	2567	2.1%
	Wed Nov 8, 2006	3:00 - 6:00 PM	2669	0.7%
	Wed Nov 9, 2005	3:00 - 6:00 PM	2539	1.7%
	Tue Dec 14, 2004	3:00 - 6:00 PM	2639	6.8%
	Wed May 7, 2003	3:00 - 6:00 PM	2227	4.2%
	Tue May 7, 2002	3:00 - 6:00 PM	2114	5.8%
	Wed Oct 17, 2001	3:00 - 6:00 PM	2157	3.8%
	Thu Nov 9, 2000	3:00 - 6:00 PM	2060	5.9%
	Tue Mar 9, 1999	3:00 - 6:00 PM	1966	20.7%

**NOTES:** (a) Morning period of operation from 5:00 to 9:00 AM.

(b) Evening period of operation from 3:00 to 7:00 PM.

# ALAMEDA-880

SCL County Line to Whipple Road

## Violation History

Northbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
<b>A.M. PEAK</b>	Wed Jun 10, 2009	6:00 - 9:00 AM	1056	2.4%
	Wed Apr 16, 2008	6:00 - 9:00 AM	1086	1.8%
	Thu Apr 12, 2007	6:00 - 9:00 AM	1218	0.9%
	Wed Nov 15, 2006	6:00 - 9:00 AM	1383	0.7%
	Thu Apr 14, 2005	6:00 - 9:00 AM	1327	4.7%
	Thu Nov 4, 2004	6:00 - 9:00 AM	1160	3.8%
	Wed Oct 15, 2003	6:00 - 9:00 AM	1413	2.5%
	Tue Apr 16, 2002	6:00 - 9:00 AM	925	2.9%
	Thu Nov 1, 2001	6:00 - 9:00 AM	856	9.7%
	Wed Mar 29, 2000	6:00 - 9:00 AM	956	5.6%
	Wed Mar 10, 1999	6:00 - 9:00 AM	833	13.2%
<b>P.M. PEAK</b>	Wed May 6, 2009	3:00 - 6:00 PM	2587	1.9%
	Wed Nov 19, 2008	3:00 - 6:00 PM	2551	0.6%
	Thu Oct 18, 2007	3:00 - 6:00 PM	2702	2.3%
	Tue Nov 7, 2006	3:00 - 6:00 PM	2054	1.0%
	Tue Oct 18, 2005	3:00 - 6:00 PM	2695	3.7%
	Tue Nov 23, 2004	3:00 - 6:00 PM	2150	0.2%
	Wed Oct 15, 2003	3:00 - 6:00 PM	2366	3.1%
	Wed May 15, 2002	3:00 - 6:00 PM	2663	6.0%
	Thu Jun 7, 2001	3:00 - 6:00 PM	2755	3.9%
	Wed Nov 1, 2000	3:00 - 6:00 PM	3263	3.6%
	Thu Mar 18, 1999	3:00 - 6:00 PM	2657	4.6%

**NOTES:** (a) Morning period of operation from 5:00 to 9:00 AM.

(b) Evening period of operation from 3:00 to 7:00 PM.

# ALAMEDA-880

16th Street to SFOBB Toll Plaza

## Northbound - A.M.

Typical data for 2009 <sup>(5)</sup>

### PEAK PERIOD <sup>(4)</sup>

7:00 - 10:00 AM

### PEAK HOUR

7:00 - 8:00 AM

VEHICLES	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	100	0	25	0
Buses	73	0	30	0
Carpools <sup>(1)</sup>	1380	0	649	0
Hybrid	140	0	56	0
Vanpools	9	6	1	9
1 and 2 Occ. <sup>(2)</sup>	—	2278	—	745
Violators	213	—	95	—
<b>TOTAL</b>	<b>1915</b>	<b>2284</b>	<b>856</b>	<b>754</b>

PERSONS	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	100	0	34	2
Buses	2555	0	1050	0
Carpools <sup>(1)</sup>	3883	0	1821	0
Hybrid	140	0	56	0
Vanpools	90	60	10	90
1 and 2 Occ. <sup>(2)</sup>	—	2347	—	745
Violators	336	—	146	—
<b>TOTAL</b>	<b>7104</b>	<b>2407</b>	<b>3117</b>	<b>837</b>

RATES				
HOV Lane occupancy rate	3.7	persons/veh	3.6	persons/veh
Mixed Flow occupancy rate	1.1	persons/veh	1.1	persons/veh
Overall occupancy (incl. buses)	2.3	persons/veh	2.5	persons/veh
Violation rate <sup>(3)</sup> (HOV Lane)	11.1	%	11.1	%

**NOTES:** (1) 3 or more persons per vehicle & 2 - seater vehicles with 2 persons.

(2) Mixed flow lanes only.

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$

(4) HOV lane in operation from 5:00 to 10:00 A.M.

(5) Observations conducted 4/2/09 north of 7th Street Interchange.



# ALAMEDA-880

16th Street to SFOBB Toll Plaza

## Violation History

Northbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
<b>A.M. PEAK</b>	Thu Apr 2, 2009	7:00 - 10:00 AM	1914	11.1%
	Wed May 21, 2008	6:00 - 10:00 AM	1745	6.5%
	Thu Mar 15, 2007	7:00 - 10:00 AM	1875	12.6%
	Wed May 10, 2006	6:00 - 10:00 AM	1763	8.5%
	Wed Mar 16, 2005	6:00 - 10:00 AM	1483	10.5%
	Thu Oct 28, 2004	7:00 - 10:00 AM	1647	15.5%
	Wed May 21, 2003	5:00 - 10:00 AM	1451	5.6%
	Wed Apr 17, 2002	6:00 - 10:00 AM	1613	4.8%
	Thu Mar 22, 2001	6:00 - 10:00 AM	2402	15.5%
	Wed Sep 27, 2000	7:00 - 10:00 AM	2983	16.4%
	Tue May 18, 1999	6:00 - 10:00 AM	3471	3.1%
<b>P.M. PEAK</b>	Year 2009	-	-	-
	Year 2008	-	-	-
	Year 2007	-	-	-
	Year 2006	-	-	-
	Year 2005	-	-	-
	Year 2004	-	-	-
	Tue May 20, 2003	3:00 - 7:00 PM	457	3.5%
	Wed Apr 17, 2002	3:00 - 7:00 PM	486	6.8%
	Thu Oct 11, 2001	3:00 - 7:00 PM	397	14.6%
	Wed Oct 18, 2000	3:00 - 7:00 PM	513	43.3%
	Thu Sep 30, 1999	3:00 - 7:00 PM	587	16.5%

**NOTES:** (a) Morning period of operation from 5:00 to 10:00 AM  
(b) Evening period of operation from 3:00 to 7:00 PM.  
(c) Data was not collected in 2009 off-peak direction

# CONTRA COSTA-4

Loveridge Road to Port Chicago Highway

# Westbound - A.M.

Typical data for 2009 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup> 6:00 - 9:00 AM		PEAK HOUR 6:00 - 7:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	94	17	43	4
Buses	0	5	0	1
Carpools <sup>(1)</sup>	2820	337	940	123
Vanpools	9	9	8	2
Hybrid/Single Occ. <sup>(2)</sup>	74	11646	29	4723
Violators	82	—	18	—
<b>TOTAL</b>	<b>3079</b>	<b>12014</b>	<b>1038</b>	<b>4853</b>

PERSONS	PEAK PERIOD <sup>(4)</sup> 6:00 - 9:00 AM		PEAK HOUR 6:00 - 7:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	94	17	43	4
Buses	0	175	0	35
Carpools <sup>(1)</sup>	5734	710	1906	257
Vanpools	90	90	80	20
Hybrid/Single Occ. <sup>(2)</sup>	74	11646	29	4723
Violators	82	—	18	—
<b>TOTAL</b>	<b>6074</b>	<b>12638</b>	<b>2076</b>	<b>5039</b>

RATES	PEAK PERIOD <sup>(4)</sup> 6:00 - 9:00 AM		PEAK HOUR 6:00 - 7:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.0 persons/veh		2.0 persons/veh	
Mixed Flow occupancy rate	1.1 persons/veh		1.0 persons/veh	
Overall occupancy (incl. buses)	1.2 persons/veh		1.2 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	2.7 %		1.7 %	

**NOTES:** (1) Two or more persons per vehicle.

(2) Hybrid HOV lane only/Single and two Occupancy mixed flow lanes only.

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane}}{\text{Total no. of vehicles in HOV lane}} \times 100\%$

(4) HOV lane in operation from 5:00 to 9:00 A.M.

(5) Observations conducted 04/29/09 at Bailey Road I/C.

# CONTRA COSTA-4

Port Chicago Highway to Railroad Avenue

## Eastbound - P.M.

Typical data for 2009 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup> 3:00 - 6:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	159	28	64	6
Buses	6	15	3	3
Carpools <sup>(1)</sup>	2412	963	885	285
Vanpools	32	2	10	1
Hybrid/Single Occ. <sup>(2)</sup>	53	15772	18	5516
Violators	67	—	22	—
<b>TOTAL</b>	<b>2729</b>	<b>16780</b>	<b>1002</b>	<b>5811</b>

PERSONS	PEAK PERIOD <sup>(4)</sup> 3:00 - 6:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	159	28	64	6
Buses	210	525	105	105
Carpools <sup>(1)</sup>	4976	2082	1831	613
Vanpools	320	20	100	10
Hybrid/Single Occ. <sup>(2)</sup>	53	15772	18	5516
Violators	67	—	22	—
<b>TOTAL</b>	<b>5785</b>	<b>18427</b>	<b>2140</b>	<b>6250</b>

RATES	PEAK PERIOD <sup>(4)</sup> 3:00 - 6:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.1 persons/veh		2.1 persons/veh	
Mixed Flow occupancy rate	1.1 persons/veh		1.1 persons/veh	
Overall occupancy (incl. buses)	1.2 persons/veh		1.2 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	2.5 %		2.2 %	

**NOTES:** (1) Two or more persons per vehicle.

(2) Hybrid HOV lane only/Single and two Occupancy mixed flow lanes only.

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane}}{\text{Total no. of vehicles in HOV lane}} \times 100\%$

(4) HOV lane in operation from 3:00 to 7:00 P.M.

(5) Observations conducted 05/13/09 at San Marcos I/C.

# CONTRA COSTA-4

Loveridge Road to Port Chicago Highway

## Violation History

Westbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
<b>A.M. PEAK</b>	Wed Apr 29, 2009	6:00 - 9:00 AM	3079	<b>2.7%</b>
	Thu May 29, 2008	6:00 - 9:00 AM	3435	<b>17.9%</b>
	Thu Apr 19, 2007	6:00 - 9:00 AM	3246	<b>7.9%</b>
	Thu Sep 7, 2006	6:00 - 9:00 AM	2437	<b>3.0%</b>
	Tue Jun 7, 2005	6:00 - 9:00 AM	2634	<b>3.3%</b>
	Thu Oct 21, 2004	6:00 - 9:00 AM	2436	<b>2.0%</b>
	Thu Oct 16, 2003	6:00 - 9:00 AM	2657	<b>3.6%</b>
	Thu May 23, 2002	6:00 - 9:00 AM	2225	<b>4.5%</b>
	Wed Sep 19, 2001	6:00 - 9:00 AM	1174	<b>7.0%</b>
	Wed May 10, 2000	6:00 - 9:00 AM	861	<b>5.6%</b>

**NOTES:** (a) Morning period of operation from 6:00 to 9:00 AM.

# CONTRA COSTA-4

Port Chicago Highway to Railroad Ave.

## Violation History

Eastbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
<b>P.M. PEAK</b>	Wed May 13, 2009	3:00 - 6:00 PM	2729	<b>2.5%</b>
	Tue May 6, 2008	3:00 - 6:00 PM	2794	<b>3.3%</b>
	Tue Apr 17, 2007	3:00 - 6:00 PM	2964	<b>2.5%</b>
	Wed Sep 6, 2006	3:00 - 6:00 PM	2942	<b>1.7%</b>
	Thu Oct 20, 2005	3:00 - 6:00 PM	2524	<b>3.8%</b>
	Tue Dec 7, 2004	3:00 - 6:00 PM	2289	<b>1.7%</b>
	Wed May 14, 2003	3:00 - 6:00 PM	2292	<b>1.9%</b>
	Tue Mar 19, 2002	3:00 - 6:00 PM	2248	<b>4.4%</b>
	Tue Oct 30, 2001	3:00 - 6:00 PM	2011	<b>4.0%</b>

**NOTES:** (a) Evening period of operation from 3:00 to 7:00 PM.

# CONTRA COSTA-80

Solano County Line to Route 4

## Westbound - A.M.

Typical data for 2009<sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup> 6:00 - 10:00 AM		PEAK HOUR 6:00 - 7:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	141	40	50	11
Buses	34	49	16	13
Carpools <sup>(1)</sup>	1653	583	678	150
Hybrid	189	94	54	19
Vanpools	58	20	44	4
1 and 2 Occ. <sup>(2)</sup>	—	14062	—	4080
Violators	153	—	59	—
<b>TOTAL</b>	<b>2228</b>	<b>14848</b>	<b>901</b>	<b>4277</b>

PERSONS	PEAK PERIOD <sup>(4)</sup> 6:00 - 10:00 AM		PEAK HOUR 6:00 - 7:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	141	40	50	11
Buses	1190	1715	560	455
Carpools <sup>(1)</sup>	4813	1461	1934	345
Hybrid	189	94	54	19
Vanpools	580	200	440	40
1 and 2 Occ. <sup>(2)</sup>	—	15320	—	4375
Violators	187	—	82	—
<b>TOTAL</b>	<b>7100</b>	<b>18830</b>	<b>3120</b>	<b>5245</b>

RATES	PEAK PERIOD <sup>(4)</sup> 6:00 - 10:00 AM		PEAK HOUR 6:00 - 7:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	3.2 persons/veh		3.5 persons/veh	
Mixed Flow occupancy rate	1.3 persons/veh		1.2 persons/veh	
Overall occupancy (incl. buses)	1.5 persons/veh		1.6 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	6.9 %		6.5 %	

**NOTES:** (1) 3 or more persons per vehicle & 2 - seater vehicles with 2 persons.

(2) Mixed flow lanes only.

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane}}{\text{Total no. of vehicles in HOV lane}} \times 100\%$

(4) HOV lane in operation from 5:00 to 10:00 A.M.

(5) Observations conducted 5/20/09 east of Cummings Skyway Interchange.

# CONTRA COSTA-80

Solano County Line to Route 4

## Violation History

Westbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
<b>A.M. PEAK</b>	Wed May 20, 2009	6:00 - 10:00 AM	2228	<b>6.9%</b>
	Thu Nov 6, 2008	6:00 - 10:00 AM	2244	<b>9.9%</b>

<b>P.M. PEAK</b>	Year 2009	-	-	-
	Year 2008	-	-	-

**NOTES:** (a) Morning period of operation from 5:00 to 10:00 AM.  
(b) Evening period of operation from 3:00 to 7:00 PM.  
(c) Data was not collected in 2009 for off-peak direction

# CONTRA COSTA-80

Route 4 to Alameda County Line

## Westbound - A.M.

Typical data for 2009<sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup> 6:00 - 10:00 AM		PEAK HOUR 6:00 - 7:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	177	22	56	9
Buses	119	71	40	20
Carpools <sup>(1)</sup>	2988	528	972	123
Hybrid	345	56	84	3
Vanpools	56	11	42	3
1 and 2 Occ. <sup>(2)</sup>	—	18066	—	4851
Violators	272	—	68	—
<b>TOTAL</b>	<b>3957</b>	<b>18754</b>	<b>1262</b>	<b>5009</b>

PERSONS	PEAK PERIOD <sup>(4)</sup> 6:00 - 10:00 AM		PEAK HOUR 6:00 - 7:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	177	22	56	9
Buses	4165	2485	1400	700
Carpools <sup>(1)</sup>	8703	1397	2811	304
Hybrid	345	56	84	3
Vanpools	560	110	420	30
1 and 2 Occ. <sup>(2)</sup>	—	19979	—	5187
Violators	313	—	75	—
<b>TOTAL</b>	<b>14263</b>	<b>24049</b>	<b>4846</b>	<b>6233</b>

RATES	PEAK PERIOD <sup>(4)</sup> 6:00 - 10:00 AM		PEAK HOUR 6:00 - 7:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	3.6 persons/veh		3.8 persons/veh	
Mixed Flow occupancy rate	1.3 persons/veh		1.2 persons/veh	
Overall occupancy (incl. buses)	1.7 persons/veh		1.8 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	6.9 %		5.4 %	

**NOTES:** (1) 3 or more persons per vehicle & 2 - seater vehicles with 2 persons.

(2) Mixed flow lanes only.

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane}}{\text{Total no. of vehicles in HOV lane}} \times 100\%$

(4) HOV lane in operation from 5:00 to 10:00 A.M.

(5) Observations conducted 5/21/09 east of Hilltop Drive Interchange.



# CONTRA COSTA-80

Alameda County Line to Route 4

## Eastbound - P.M.

Typical data for 2009 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup> 3:00 - 7:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	180	36	48	11
Buses	142	18	34	0
Carpools <sup>(1)</sup>	2671	516	750	81
Hybrid	210	161	78	36
Vanpools	70	34	18	15
1 and 2 Occ. <sup>(2)</sup>	—	17646	—	4557
Violators	340	—	78	—
<b>TOTAL</b>	<b>3613</b>	<b>18411</b>	<b>1006</b>	<b>4700</b>

PERSONS	PEAK PERIOD <sup>(4)</sup> 3:00 - 7:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	180	36	48	11
Buses	4970	630	1190	0
Carpools <sup>(1)</sup>	7766	1352	2198	226
Hybrid	210	161	78	36
Vanpools	700	340	180	150
1 and 2 Occ. <sup>(2)</sup>	—	19974	—	5090
Violators	481	—	102	—
<b>TOTAL</b>	<b>14307</b>	<b>22493</b>	<b>3796</b>	<b>5513</b>

RATES	PEAK PERIOD <sup>(4)</sup> 3:00 - 7:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	4.0 persons/veh		3.8 persons/veh	
Mixed Flow occupancy rate	1.2 persons/veh		1.2 persons/veh	
Overall occupancy (incl. buses)	1.7 persons/veh		1.6 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	9.4 %		7.8 %	

**NOTES:** (1) 3 or more persons per vehicle & 2 - seater vehicles with 2 persons.

(2) Mixed flow lanes only.

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane}}{\text{Total no. of vehicles in HOV lane}} \times 100\%$

(4) HOV lane in operation from 3:00 to 7:00 P.M.

(5) Observations conducted 9/22/09 east of Hilltop Drive Interchange.

# CONTRA COSTA-80

Route 4 to Alameda County Line

## Violation History

Westbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
<b>A.M. PEAK</b>	Thu May 21, 2009	6:00 - 10:00 AM	3957	<b>6.9%</b>
	Thu May 22, 2008	6:00 - 10:00 AM	3539	<b>10.4%</b>
	Thu Oct 18, 2007	7:00 - 10:00 AM	2787	<b>10.6%</b>
	Wed May 24, 2006	6:00 - 10:00 AM	4095	<b>10.9%</b>
	Thu Nov 10, 2005	7:00 - 10:00 AM	2635	<b>12.5%</b>
	Tue Nov 9, 2004	7:00 - 10:00 AM	2507	<b>9.2%</b>
	Fri May 9, 2003	6:00 - 10:00 AM	4509	<b>27.2%</b>
	Tue Apr 16, 2002	7:00 - 10:00 AM	2656	<b>6.4%</b>
	Tue Mar 27, 2001	6:00 - 10:00 AM	3640	<b>8.7%</b>
	Tue Oct 3, 2000	7:00 - 10:00 AM	2643	<b>9.5%</b>
	Tue Nov 9, 1999	7:00 - 10:00 AM	2186	<b>11.1%</b>
<b>P.M. PEAK</b>	Year 2009	-	-	-
	Year 2008	-	-	-
	Year 2007	-	-	-
	Year 2006	-	-	-
	Year 2005	-	-	-
	Year 2004	-	-	-
	Year 2003	-	-	-
	Tue May 7, 2002	3:00 - 7:00 PM	1401	<b>25.7%</b>
	Thu Oct 4, 2001	3:00 - 7:00 PM	1432	<b>24.2%</b>
	Thu Apr 13, 2000	3:00 - 7:00 PM	1167	<b>37.3%</b>
	Wed Apr 21, 1999	3:00 - 7:00 PM	1068	<b>18.5%</b>

**NOTES:** (a) Morning period of operation from 5:00 to 10:00 AM.  
(b) Evening period of operation from 3:00 to 7:00 PM.  
(c) Data was not collected in 2009 for off-peak direction

# CONTRA COSTA-80

Alameda County Line to Route 4

## Violation History

Eastbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
<b>A.M. PEAK</b>	Year 2009	-	-	-
	Year 2008	-	-	-
	Year 2007	-	-	-
	Year 2006	-	-	-
	Year 2005	-	-	-
	Year 2004	-	-	-
	Year 2003	-	-	-
	Tue Apr 23, 2002	6:00 - 10:00 AM	632	19.8%
	Tue May 15, 2001	6:00 - 10:00 AM	553	18.3%
	Thu Dec 14, 2000	7:00 - 10:00 AM	483	26.3%
	Wed Apr 7, 1999	7:00 - 10:00 AM	498	26.9%
<b>P.M. PEAK</b>	Tue Sep 22, 2009	3:00 - 7:00 PM	3613	9.4%
	Thu Oct 9, 2008	3:00 - 7:00 PM	4323	2.5%
	Tue Apr 24, 2007	3:00 - 7:00 PM	3653	2.0%
	Tue May 2, 2006	3:00 - 7:00 PM	4580	6.7%
	Tue Apr 19, 2005	3:00 - 7:00 PM	3897	6.4%
	Thu Oct 21, 2004	3:00 - 6:00 PM	3214	9.3%
	Wed May 28, 2003	3:00 - 7:00 PM	4256	11.5%
	Tue Apr 16, 2002	3:00 - 7:00 PM	3921	9.0%
	Thu Sep 20, 2001	3:00 - 7:00 PM	4649	4.4%
	Tue Sep 26, 2000	3:00 - 7:00 PM	3780	18.0%
	Tue Apr 13, 1999	3:00 - 7:00 PM	2956	9.5%

**NOTES:** (a) Morning period of operation from 5:00 to 10:00 AM.  
(b) Evening period of operation from 3:00 to 7:00 PM.  
(c) Data was not collected in 2009 off-peak direction

# CONTRA COSTA-680

N/O Marina Vista I/C to Benicia Bridge Toll Plaza

## Northbound - A.M.

Typical data for 2009 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup> 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	28	4	14	0
Buses	9	15	2	3
Carpools <sup>(1)</sup>	60	13	22	7
Vanpools	3	3	1	1
Hybrid / Single Occ. <sup>(2)</sup>	34	7521	13	2725
Violators	213	—	67	—
<b>TOTAL</b>	<b>347</b>	<b>7556</b>	<b>119</b>	<b>2736</b>
PERSONS	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	28	4	14	0
Buses	315	525	70	105
Carpools <sup>(1)</sup>	180	39	66	21
Vanpools	30	30	10	10
Hybrid / Single Occ. <sup>(2)</sup>	34	7521	13	2725
Violators	335	—	112	—
<b>TOTAL</b>	<b>922</b>	<b>8119</b>	<b>285</b>	<b>2861</b>
RATES				
HOV Lane occupancy rate	2.7 persons/veh		2.4 persons/veh	
Mixed Flow occupancy rate	1.1 persons/veh		1.0 persons/veh	
Overall occupancy (incl. buses)	1.1 persons/veh		1.1 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	61.4 %		56.3 %	

**NOTES:** (1) Three or more persons per vehicle.

(2) Hybrid HOV lane only/Single and two Occupancy mixed flow lanes only.

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$

(4) HOV lane in operation from 5:00 to 10:00 A.M.

(5) Observations conducted 4/23/09 at Benicia Bridge Toll Plaza.

# CONTRA COSTA-680

N/O Marina Vista I/C to Benicia Bridge Toll Plaza

## Northbound - P.M.

Typical data for 2009 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup> 3:00 - 6:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	112	11	45	4
Buses	11	5	1	1
Carpools <sup>(1)</sup>	436	43	150	12
Vanpools	19	1	6	1
Hybrid / Single Occ. <sup>(2)</sup>	42	12493	16	4477
Violators	175	—	58	—
<b>TOTAL</b>	<b>795</b>	<b>12553</b>	<b>276</b>	<b>4495</b>
PERSONS	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	112	11	45	4
Buses	385	175	35	35
Carpools <sup>(1)</sup>	1308	129	450	36
Vanpools	190	10	60	10
Hybrid / Single Occ. <sup>(2)</sup>	42	12493	16	4477
Violators	346	—	115	—
<b>TOTAL</b>	<b>2383</b>	<b>12818</b>	<b>721</b>	<b>4562</b>
RATES				
HOV Lane occupancy rate	3.0 persons/veh		2.6 persons/veh	
Mixed Flow occupancy rate	1.0 persons/veh		1.0 persons/veh	
Overall occupancy (incl. buses)	1.1 persons/veh		1.1 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	22.0 %		21.0 %	

**NOTES:** (1) Three or more persons per vehicle.

(2) Hybrid HOV lane only/Single and two Occupancy mixed flow lanes only.

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$

(4) HOV lane in operation from 5:00 to 10:00 A.M.

(5) Observations conducted 4/22/09 at Benicia Bridge Toll Plaza.

# CONTRA COSTA-680

## Violation History

N/O Marina Vista I/C to Benicia Bridge Toll Plaza

Northbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
<b>A.M. PEAK</b>	Thu Apr 23, 2009	6:00 - 9:00 AM	347	<b>61.4%</b>
	Tue Oct 28, 2008	6:00 - 9:00 AM	332	<b>3.6%</b>
	Thu Sep 6, 2007	6:00 - 9:00 AM	345	<b>3.5%</b>
<b>P.M. PEAK</b>	Wed Apr 22, 2009	3:00 - 6:00 PM	795	<b>22.0%</b>
	Wed Dec 10, 2008	3:00 - 6:00 PM	817	<b>12.1%</b>
	Wed Sep 5, 2007	3:00 - 6:00 PM	870	<b>7.8%</b>

### NOTES:

- (a) Morning period of operation from 5:00 to 10:00 AM.
- (b) Evening period of operation from 3:00 to 7:00 PM.

# CONTRA COSTA-680

Marina Vista I/C to N/O North Main St.

## Southbound - P.M.

Typical data for 2009 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup> 3:00 - 6:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	71	31	20	1
Buses	14	55	1	8
Carpools <sup>(1)</sup>	1110	1157	323	357
Vanpools	6	47	1	6
Hybrid/Single Occ. <sup>(2)</sup>	117	19382	48	6890
Violators	10	—	3	—
<b>TOTAL</b>	<b>1328</b>	<b>20672</b>	<b>396</b>	<b>7262</b>
PERSONS	HOV Lane		Mixed Flow Lanes	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	71	31	20	1
Buses	490	1925	35	280
Carpools <sup>(1)</sup>	2454	4852	695	738
Vanpools	60	470	10	60
Hybrid/Single Occ. <sup>(2)</sup>	117	19382	48	6890
Violators	10	—	3	—
<b>TOTAL</b>	<b>3202</b>	<b>26660</b>	<b>811</b>	<b>7969</b>
RATES	HOV Lane		Mixed Flow Lanes	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.4 persons/veh		2.0 persons/veh	
Mixed Flow occupancy rate	1.3 persons/veh		1.1 persons/veh	
Overall occupancy (incl. buses)	1.4 persons/veh		1.1 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	0.8 %		0.8 %	

**NOTES:** (1) Two or more persons per vehicle.

(2) Hybrid HOV lane only/Single and two Occupancy mixed flow lanes only.

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane}}{\text{Total no. of vehicles in HOV lane}} \times 100\%$

(4) HOV lane in operation from 3:00 to 7:00 P.M.

(5) Observations conducted 05/20/09 at Truck Scale.

# CONTRA COSTA - 680

Marina Vista I/C. to N/O North Main St

## Violation History

Southbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
<b>A.M. PEAK</b>	Year 2009	-	-	-
	Thu Nov 13, 2008	6:00 - 9:00 AM	2598	1.8%
	Wed Mar 28, 2007	6:00 - 9:00 AM	2959	1.5%
	Wed Oct 11, 2006	6:00 - 9:00 AM	2727	1.0%
	Tue May 3, 2005	6:00 - 9:00 AM	2387	0.9%
	Wed Oct 6, 2004	6:00 - 9:00 AM	2068	2.0%
<b>P.M. PEAK</b>	Wed May 20, 2009	3:00 - 6:00 PM	1328	0.8%
	Wed Nov 12, 2008	3:00 - 6:00 PM	1325	1.1%
	Wed Mar 28, 2007	3:00 - 6:00 PM	1378	1.5%
	Wed Oct 25, 2006	3:00 - 6:00 PM	1270	1.4%
	Tue Sep 27, 2005	3:00 - 6:00 PM	1095	2.1%
	Tue Oct 5, 2004	3:00 - 6:00 PM	1083	4.2%

**NOTES:** (a) Morning period of operation from 6:00 to 9:00 AM.

(b) Evening period of operation from 3:00 to 7:00 PM.



# CONTRA COSTA-680

Route 242 to Marina Vista I/C

## Northbound - A.M.

Typical data for 2009 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup>		PEAK HOUR	
	6:00 - 9:00 AM		7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	14	6	7	3
Buses	10	5	3	2
Carpools <sup>(1)</sup>	476	328	155	146
Vanpools	5	0	2	0
Hybrid/Single Occ. <sup>(2)</sup>	17	7100	5	2684
Violators	0	—	0	—
<b>TOTAL</b>	<b>522</b>	<b>7439</b>	<b>172</b>	<b>2835</b>
PERSONS	HOV Lane		Mixed Flow Lanes	
	HOV Lane		Mixed Flow Lanes	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	14	6	7	3
Buses	350	175	105	70
Carpools <sup>(1)</sup>	1080	682	354	302
Vanpools	50	0	20	0
Hybrid/Single Occ. <sup>(2)</sup>	17	7100	5	2684
Violators	0	—	0	—
<b>TOTAL</b>	<b>1511</b>	<b>7963</b>	<b>491</b>	<b>3059</b>
RATES	HOV Lane		Mixed Flow Lanes	
	HOV Lane		Mixed Flow Lanes	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.9 persons/veh		2.9 persons/veh	
Mixed Flow occupancy rate		1.1 persons/veh		1.1 persons/veh
Overall occupancy (incl. buses)	1.2 persons/veh		1.2 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	0.0 %		0.0 %	

**NOTES:** (1) Two or more persons per vehicle.

(2) Hybrid HOV lane only/Single and two Occupancy mixed flow lanes only.

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane}}{\text{Total no. of vehicles in HOV lane}} \times 100\%$

(4) HOV lane in operation from 6:00 to 9:00 A.M.

(5) Observations conducted 03/12/09 at Pacheco Boulevard.

# CONTRA COSTA-680

Route 242 to Marina Vista I/C

## Northbound - P.M.

Typical data for 2009 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup> 3:00 - 6:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	55	17	15	2
Buses	6	9	3	2
Carpools <sup>(1)</sup>	2773	675	1076	198
Vanpools	26	3	8	0
Hybrid/Single Occ. <sup>(2)</sup>	41	9871	16	3606
Violators	48	—	11	—
<b>TOTAL</b>	<b>2949</b>	<b>10575</b>	<b>1129</b>	<b>3808</b>

PERSONS	PEAK PERIOD <sup>(4)</sup> 3:00 - 6:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	55	17	15	2
Buses	210	315	105	70
Carpools <sup>(1)</sup>	5665	1417	2194	416
Vanpools	260	30	80	0
Hybrid/Single Occ. <sup>(2)</sup>	41	9871	16	3606
Violators	48	—	11	—
<b>TOTAL</b>	<b>6279</b>	<b>11650</b>	<b>2421</b>	<b>4094</b>

RATES	PEAK PERIOD <sup>(4)</sup> 3:00 - 6:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.1 persons/veh		2.1 persons/veh	
Mixed Flow occupancy rate	1.1 persons/veh		1.1 persons/veh	
Overall occupancy (incl. buses)	1.3 persons/veh		1.3 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	1.6 %		1.0 %	

**NOTES:** (1) Two or more persons per vehicle.

(2) Hybrid HOV lane only/Single and two Occupancy mixed flow lanes only.

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane}}{\text{Total no. of vehicles in HOV lane}} \times 100\%$

(4) HOV lane in open Total no. of vehicles in HOV lane

(5) Observations conducted 05/21/09 at Pacheco Boulevard.

# CONTRA COSTA - 680

Route 242 to Marina Vista I/C.

## Violation History

Northbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
<b>A.M. PEAK</b>	Thu Mar 12, 2009	6:00 - 9:00 AM	522	<b>0.0%</b>
	Wed Nov 12, 2008	6:00 - 9:00 AM	698	<b>1.3%</b>
	Wed Sep 5, 2007	6:00 - 9:00 AM	479	<b>5.8%</b>
	Wed Apr 26, 2006	6:00 - 9:00 AM	511	<b>13.7%</b>
	Thu Sep 22, 2005	6:00 - 9:00 AM	560	<b>5.5%</b>
<b>P.M. PEAK</b>	Thu May 21, 2009	3:00 - 6:00 PM	2949	<b>1.6%</b>
	Thu Nov 13, 2008	3:00 - 6:00 PM	1701	<b>2.4%</b>
	Tue Oct 30, 2007	3:00 - 6:00 PM	1636	<b>7.3%</b>
	Thu Oct 26, 2006	3:00 - 6:00 PM	1732	<b>2.3%</b>
	Thu Oct 6, 2005	3:00 - 6:00 PM	1910	<b>8.8%</b>

**NOTES:** (a) Morning period of operation from 6:00 to 9:00 AM.

(b) Evening period of operation from 3:00 to 7:00 PM.

# CONTRA COSTA-680

Livorna Road to Alcosta Boulevard

# Southbound - A.M.

Typical data for 2009 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup>		PEAK HOUR	
	6:00 - 9:00 AM		7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	54	3	23	1
Buses	15	34	4	7
Carpools <sup>(1)</sup>	1970	195	742	97
Vanpools	19	0	10	0
Hybrid/Single Occ. <sup>(2)</sup>	150	14056	52	5197
Violators	109	—	22	—
<b>TOTAL</b>	<b>2317</b>	<b>14288</b>	<b>853</b>	<b>5302</b>
PERSONS	HOV Lane		Mixed Flow Lanes	
	HOV Lane		Mixed Flow Lanes	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	54	3	23	1
Buses	525	1190	140	245
Carpools <sup>(1)</sup>	4038	412	1516	203
Vanpools	190	0	100	0
Hybrid/Single Occ. <sup>(2)</sup>	150	14056	52	5197
Violators	109	—	22	—
<b>TOTAL</b>	<b>5066</b>	<b>15661</b>	<b>1853</b>	<b>5646</b>
RATES	HOV Lane		Mixed Flow Lanes	
	HOV Lane		Mixed Flow Lanes	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.2 persons/veh		2.2 persons/veh	
Mixed Flow occupancy rate		1.1 persons/veh		1.1 persons/veh
Overall occupancy (incl. buses)	1.2 persons/veh		1.2 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	4.7 %		2.6 %	

**NOTES:** (1) Two or more persons per vehicle.

(2) Hybrid HOV lane only/Single and two Occupancy mixed flow lanes only.

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane}}{\text{Total no. of vehicles in HOV lane}} \times 100\%$

(4) HOV lane in operation from 6:00 to 9:00 A.M.

(5) Observations conducted 10/07/09 at Stone Valley Road.

# CONTRA COSTA-680

Livorna Road to Alcosta Boulevard

## Southbound - P.M.

Typical data for 2009 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup>		PEAK HOUR	
	3:00 - 6:00 PM		4:00 - 5:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	51	4	15	2
Buses	28	23	13	10
Carpools <sup>(1)</sup>	2018	985	628	392
Vanpools	8	11	3	4
Single Occ. <sup>(2)</sup>	76	13172	23	4607
Violators	45	—	12	—
<b>TOTAL</b>	<b>2226</b>	<b>14195</b>	<b>694</b>	<b>5015</b>
PERSONS	HOV Lane		Mixed Flow Lanes	
	HOV Lane		Mixed Flow Lanes	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	51	4	15	2
Buses	980	805	455	350
Carpools <sup>(1)</sup>	4330	2101	1354	843
Vanpools	80	110	30	40
Single Occ. <sup>(2)</sup>	76	13172	23	4607
Violators	45	—	12	—
<b>TOTAL</b>	<b>5562</b>	<b>16192</b>	<b>1889</b>	<b>5842</b>
RATES	HOV Lane		Mixed Flow Lanes	
	HOV Lane		Mixed Flow Lanes	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.5 persons/veh		2.7 persons/veh	
Mixed Flow occupancy rate	1.1 persons/veh		1.2 persons/veh	
Overall occupancy (incl. buses)	1.3 persons/veh		1.4 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	2.0 %		1.7 %	

**NOTES:** (1) Two or more persons per vehicle.

(2) Hybrid HOV lane only/Single and two Occupancy mixed flow lanes only.

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane}}{\text{Total no. of vehicles in HOV lane}} \times 100\%$

(4) HOV lane in open Total no. of vehicles in HOV lane

(5) Observations conducted 05/19/09 at Stone Valley Road.

# CONTRA COSTA-680

Alcosta Boulevard to Livorna Road

## Northbound - A.M.

Typical data for 2009 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup>		PEAK HOUR	
	6:00 - 9:00 AM		8:00 - 9:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	11	2	8	1
Buses	22	17	12	15
Carpools <sup>(1)</sup>	2098	145	932	99
Vanpools	7	5	2	5
Hybrid/Single Occ. <sup>(2)</sup>	86	13305	57	5026
Violators	7	—	7	—
<b>TOTAL</b>	<b>2231</b>	<b>13474</b>	<b>1018</b>	<b>5146</b>
PERSONS	HOV Lane		Mixed Flow Lanes	
	HOV Lane		Mixed Flow Lanes	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	11	2	8	1
Buses	770	595	420	525
Carpools <sup>(1)</sup>	4281	304	1898	209
Vanpools	70	50	20	50
Hybrid/Single Occ. <sup>(2)</sup>	86	13305	57	5026
Violators	7	—	7	—
<b>TOTAL</b>	<b>5225</b>	<b>14256</b>	<b>2410</b>	<b>5811</b>
RATES	HOV Lane		Mixed Flow Lanes	
	HOV Lane		Mixed Flow Lanes	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.3 persons/veh		2.4 persons/veh	
Mixed Flow occupancy rate	1.1 persons/veh		1.1 persons/veh	
Overall occupancy (incl. buses)	1.2 persons/veh		1.3 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	0.3 %		0.7 %	

**NOTES:** (1) Two or more persons per vehicle.

(2) Hybrid HOV lane only/Single and two Occupancy mixed flow lanes only.

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane}}{\text{Total no. of vehicles in HOV lane}} \times 100\%$

(4) HOV lane in operation from 3:00 to 6:00 P.M.

(5) Observations conducted 3/11/09 at Stone Valley Road.

# CONTRA COSTA-680

Alcosta Boulevard to Livorna Road

## Northbound - P.M.

Typical data for 2009 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup>		PEAK HOUR	
	3:00 - 6:00 PM		5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	52	13	9	1
Buses	27	27	10	3
Carpools <sup>(1)</sup>	2583	542	981	136
Vanpools	46	2	10	0
Hybrid/Single Occ. <sup>(2)</sup>	44	13516	16	5052
Violators	40	—	8	—
<b>TOTAL</b>	<b>2792</b>	<b>14100</b>	<b>1034</b>	<b>5192</b>
PERSONS	HOV Lane		Mixed Flow Lanes	
	HOV Lane		Mixed Flow Lanes	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	52	13	9	1
Buses	945	945	350	105
Carpools <sup>(1)</sup>	5223	1127	1982	286
Vanpools	460	20	100	0
Hybrid/Single Occ. <sup>(2)</sup>	44	13516	16	5052
Violators	40	—	8	—
<b>TOTAL</b>	<b>6764</b>	<b>15621</b>	<b>2465</b>	<b>5444</b>
RATES	HOV Lane		Mixed Flow Lanes	
	HOV Lane		Mixed Flow Lanes	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.4	persons/veh	2.4	persons/veh
Mixed Flow occupancy rate	1.1	persons/veh	1.0	persons/veh
Overall occupancy (incl. buses)	1.3	persons/veh	1.3	persons/veh
Violation rate <sup>(3)</sup> (HOV Lane)	1.4	%	0.8	%

**NOTES:** (1) Two or more persons per vehicle.

(2) Hybrid HOV lane only/Single and two Occupancy mixed flow lanes only.

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane}}{\text{Total no. of vehicles in HOV lane}} \times 100\%$

(4) HOV lane in operation from 3:00 to 6:00 P.M.

(5) Observations conducted 05/14/09 at Stone Valley Road.

# CONTRA COSTA-680

Livorna Road to Alcosta Boulevard

## Violation History

Southbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
<b>A.M. PEAK</b>	Wed Oct 7, 2009	6:00 - 9:00 AM	2317	4.7%
	Tue Dec 9, 2008	6:00 - 9:00 AM	2384	0.6%
	Thu Oct 4, 2007	6:00 - 9:00 AM	2838	2.2%
	Thu Jun 8, 2006	6:00 - 9:00 AM	3047	7.6%
	Wed Nov 16, 2005	6:00 - 9:00 AM	2793	4.4%
	Tue Oct 5, 2004	6:00 - 9:00 AM	2118	4.5%
	Thu Apr 3, 2003	6:00 - 9:00 AM	2114	0.6%
	Thu Jun 13, 2002	6:00 - 9:00 AM	2480	1.7%
	Thu Mar 15, 2001	6:00 - 9:00 AM	2609	5.3%
	Thu Apr 6, 2000	6:00 - 9:00 AM	2258	2.8%
	Wed Sep 29, 1999	6:00 - 9:00 AM	1974	3.1%
<b>P.M. PEAK</b>	Tue May 19, 2009	3:00 - 6:00 PM	2226	2.0%
	Wed Nov 5, 2008	3:00 - 6:00 PM	2277	0.8%
	Thu Oct 25, 2007	3:00 - 6:00 PM	2889	3.4%
	Wed Sep 20, 2006	3:00 - 6:00 PM	3143	1.3%
	Tue Nov 15, 2005	3:00 - 6:00 PM	2640	3.0%
	Thu Oct 28, 2004	3:00 - 6:00 PM	2527	2.6%
	Tue Apr 8, 2003	3:00 - 6:00 PM	2109	2.4%
	Wed Mar 13, 2002	3:00 - 6:00 PM	2009	7.8%
	Wed May 9, 2001	3:00 - 6:00 PM	1831	8.5%
	Tue Dec 12, 2000	3:00 - 6:00 PM	1337	4.3%
	Wed Sep 29, 1999	3:00 - 6:00 PM	1604	7.2%

**NOTES:** (a) Morning period of operation from 6:00 to 9:00 AM.  
(b) Evening period of operation from 3:00 to 6:00 PM.



# CONTRA COSTA-680

Alcosta Boulevard to Livorna Road

## Violation History

Northbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
<b>A.M. PEAK</b>	Wed Mar 11, 2009	6:00 - 9:00 AM	2231	0.3%
	Wed Apr 9, 2008	6:00 - 9:00 AM	1656	0.4%
	Thu Mar 8, 2007	6:00 - 9:00 AM	1847	3.9%
	Wed Sep 13, 2006	6:00 - 9:00 AM	2194	2.1%
	Wed Apr 27, 2005	6:00 - 9:00 AM	1891	3.5%
	Thu Oct 7, 2004	6:00 - 9:00 AM	1899	3.0%
	Tue Oct 21, 2003	6:00 - 9:00 AM	1920	5.0%
	Thu Apr 25, 2002	6:00 - 9:00 AM	1746	6.9%
	Tue Sep 25, 2001	6:00 - 9:00 AM	1681	3.0%
	Thu Nov 2, 2000	6:00 - 9:00 AM	1263	7.0%
	Tue Sep 28, 1999	6:00 - 9:00 AM	621	7.1%
<b>P.M. PEAK</b>	Thu May 14, 2009	3:00 - 6:00 PM	2792	1.4%
	Tue May 20, 2008	3:00 - 6:00 PM	3700	1.1%
	Tue Sep 11, 2007	3:00 - 6:00 PM	3759	2.2%
	Wed Nov 29, 2006	3:00 - 6:00 PM	3757	0.9%
	Tue Apr 26, 2005	3:00 - 6:00 PM	3727	3.2%
	Thu Dec 2, 2004	3:00 - 6:00 PM	3842	2.4%
	Tue Oct 21, 2003	3:00 - 6:00 PM	3677	3.4%
	Wed Nov 20, 2002	3:00 - 6:00 PM	3989	4.5%
	Tue May 8, 2001	3:00 - 6:00 PM	3742	5.0%
	Wed Oct 4, 2000	3:00 - 6:00 PM	4165	3.6%
	Tue Oct 26, 1999	3:00 - 6:00 PM	3224	4.9%

**NOTES:** (a) Morning period of operation from 6:00 to 9:00 AM.  
(b) Evening period of operation from 3:00 to 6:00 PM.

# MARIN-101

Mission Avenue to Richardson Bridge

# Southbound - A.M.

Typical data for 2009 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup> 6:30 - 8:30 AM		PEAK HOUR 7:30 - 8:30 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	46	16	23	12
Buses	46	51	23	32
Carpools <sup>(1)</sup>	912	404	502	223
Vanpools	5	6	2	2
Hybrid/Single Occ. <sup>(2)</sup>	99	7251	58	3850
Violators	24	—	7	—
<b>TOTAL</b>	<b>1132</b>	<b>7728</b>	<b>615</b>	<b>4119</b>

PERSONS	PEAK PERIOD <sup>(4)</sup> 6:30 - 8:30 AM		PEAK HOUR 7:30 - 8:30 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	46	16	23	12
Buses	1610	1785	805	1120
Carpools <sup>(1)</sup>	1888	843	1044	467
Vanpools	50	60	20	20
Hybrid/Single Occ. <sup>(2)</sup>	99	7251	58	3850
Violators	24	—	7	—
<b>TOTAL</b>	<b>3717</b>	<b>9955</b>	<b>1957</b>	<b>5469</b>

RATES	PEAK PERIOD <sup>(4)</sup> 6:30 - 8:30 AM		PEAK HOUR 7:30 - 8:30 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	3.3 persons/veh		3.2 persons/veh	
Mixed Flow occupancy rate	1.3 persons/veh		1.3 persons/veh	
Overall occupancy (incl. buses)	1.5 persons/veh		1.6 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	2.1 %		1.1 %	

- NOTES:** (1) Two or more occupants per vehicle.  
 (2) Hybrid HOV Lane only/Single Occupancy mixed flow lanes only.  
 (3) Violation rate =  $\frac{\text{no. of violators in HOV lane}}{\text{Total no. of vehicles in HOV lane}} \times 100\%$   
 (4) HOV lane in operation from 6:30 to 8:30 A.M.  
 (5) Observations conducted 06/02/09 at Route 131, East Blithdale Ave. I/C.

# MARIN-101

Richardson Bridge to Mission Avenue

## Northbound - P.M.

Typical data for 2009 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup> 4:30 - 7:00 PM		PEAK HOUR 5:30 - 6:30 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	76	23	41	3
Buses	64	40	27	16
Carpools <sup>(1)</sup>	1508	625	855	201
Vanpools	8	7	3	0
Hybrid/Single Occ. <sup>(2)</sup>	171	9762	82	4368
Violators	21	—	2	—
<b>TOTAL</b>	<b>1848</b>	<b>10457</b>	<b>1010</b>	<b>4588</b>

PERSONS	PEAK PERIOD <sup>(4)</sup> 4:30 - 7:00 PM		PEAK HOUR 5:30 - 6:30 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	76	23	41	3
Buses	2240	1400	945	560
Carpools <sup>(1)</sup>	3092	1253	1755	402
Vanpools	80	70	30	0
Hybrid/Single Occ. <sup>(2)</sup>	171	9762	82	4368
Violators	21	—	2	—
<b>TOTAL</b>	<b>5680</b>	<b>12508</b>	<b>2855</b>	<b>5333</b>

RATES	PEAK PERIOD <sup>(4)</sup> 4:30 - 7:00 PM		PEAK HOUR 5:30 - 6:30 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	3.1 persons/veh		2.8 persons/veh	
Mixed Flow occupancy rate	1.2 persons/veh		1.2 persons/veh	
Overall occupancy (incl. buses)	1.5 persons/veh		1.5 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	1.1 %		0.2 %	

- NOTES:** (1) Two or more occupants per vehicle.  
 (2) Hybrid HOV Lane only/Single Occupancy mixed flow lanes only.  
 (3) Violation rate =  $\frac{\text{no. of violators in HOV lane}}{\text{Total no. of vehicles in HOV lane}} \times 100\%$   
 (4) HOV lane in operation from 4:30 to 7:00 P.M.  
 (5) Observations conducted 09/24/09 at Route 131, E. Blithdale Ave. I/C.

# MARIN-101

Mission Avenue to Richardson Bay Bridge

## Violation History

Southbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
<b>A.M. PEAK</b>	Tue June 2, 2009	6:30 - 8:30 AM	1132	<b>2.1%</b>
	Wed Oct 15, 2008	6:30 - 8:30 AM	1104	<b>1.6%</b>
	Wed Sep 19, 2007	6:30 - 8:30 AM	1159	<b>1.5%</b>
	Thu Apr 13, 2006	6:30 - 8:30 AM	1049	<b>1.4%</b>
	Thu Mar 3, 2005	6:30 - 8:30 AM	1099	<b>3.0%</b>
	Thu Nov 4, 2004	6:30 - 8:30 AM	1015	<b>4.4%</b>
	Tue Apr 8, 2003	6:30 - 8:30 AM	1118	<b>3.4%</b>
	Wed Mar 20, 2002	6:30 - 8:30 AM	1591	<b>1.9%</b>
	Wed Mar 28, 2001	6:30 - 8:30 AM	1495	<b>2.3%</b>
	Thu Mar 23, 2000	6:30 - 8:30 AM	1538	<b>2.8%</b>
	Wed Mar 17, 1999	6:30 - 8:30 AM	1394	<b>2.3%</b>

**NOTES:** (a) *Minimum occupancy requirement was reduced to 2 persons per vehicle on October 1, 1988*  
(b) *Morning period of operation from 6:30 to 8:30 AM.*

# MARIN-101

Richardson Bay Bridge to Mission Avenue

## Violation History

Northbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
<b>P.M. PEAK</b>	Thu Sep 24, 2009	4:30 - 7:00 PM	1848	1.1%
	Wed Oct 15, 2008	4:30 - 7:00 PM	1262	1.4%
	Wed Oct 3, 2007	4:30 - 7:00 PM	2545	1.2%
	Thu Apr 6, 2006	4:30 - 7:00 PM	1781	1.4%
	Thu Sep 29, 2005	4:30 - 7:00 PM	1953	1.6%
	Wed Oct 13, 2004	4:30 - 7:00 PM	1529	1.9%
	Wed Apr 16, 2003	4:30 - 7:00 PM	1370	2.4%
	Tue Sep 17, 2002	4:30 - 7:00 PM	1365	1.5%
	Tue Apr 3, 2001	4:30 - 7:00 PM	1544	3.9%
	Tue Oct 3, 2000	4:30 - 7:00 PM	1771	1.6%
	Tue Mar 16, 1999	4:30 - 7:00 PM	1719	1.9%

**NOTES:** (a) Minimum occupancy requirement was reduced to 2 persons per vehicle on October 1, 1988  
(b) Evening period of operation from 4:30 to 7:00 PM.

# MARIN-101

Route 37 to Mission Avenue

## Southbound - A.M.

Typical data for 2009 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup>		PEAK HOUR	
	6:30 - 8:30 AM		6:30 - 7:30 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	45	6	18	4
Buses	19	24	9	12
Carpools <sup>(1)</sup>	1047	224	586	142
Vanpools	12	15	0	4
Hybrid/Single Occ. <sup>(2)</sup>	84	8227	39	4140
Violators	18	—	11	—
<b>TOTAL</b>	1225	8496	663	4302
PERSONS	HOV Lane		HOV Lane	
	Mixed Flow Lanes		Mixed Flow Lanes	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	45	6	18	4
Buses	665	840	315	420
Carpools <sup>(1)</sup>	2129	534	1196	342
Vanpools	120	150	0	40
Hybrid/Single Occ. <sup>(2)</sup>	84	8227	39	4140
Violators	18	—	11	—
<b>TOTAL</b>	3061	9757	1579	4946
RATES	HOV Lane		HOV Lane	
	Mixed Flow Lanes		Mixed Flow Lanes	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.5 persons/veh		2.4 persons/veh	
Mixed Flow occupancy rate	1.1 persons/veh		1.1 persons/veh	
Overall occupancy (incl. buses)	1.3 persons/veh		1.3 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	1.5 %		2.0 %	

- NOTES:** (1) Two or more occupants per vehicle.  
(2) Hybrid HOV Lane only/Single Occupancy mixed flow lanes only.  
(3) Violation rate =  $\frac{\text{no. of violators in HOV lane}}{\text{Total no. of vehicles in HOV lane}} \times 100\%$   
(4) HOV lane in operation from 6:30 to 8:30 A.M.  
(5) Observations conducted 03/12/09 at Alameda Del Prado Dr. I/C.

# MARIN-101

Mission Avenue to Route 37

## Northbound - P.M.

Typical data for 2009 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup> 4:30 - 7:00 PM		PEAK HOUR 5:30 - 6:30 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	106	32	49	13
Buses	46	36	22	12
Carpools <sup>(1)</sup>	1928	836	841	262
Vanpools	8	1	5	0
Hybrid/Single Occ. <sup>(2)</sup>	103	12069	58	4836
Violators	28	—	2	—
<b>TOTAL</b>	<b>2219</b>	<b>12974</b>	<b>961</b>	<b>5123</b>
PERSONS	HOV Lane		Mixed Flow Lanes	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	106	32	49	13
Buses	1610	1260	770	420
Carpools <sup>(1)</sup>	3951	1789	1719	559
Vanpools	80	10	50	0
Hybrid/Single Occ. <sup>(2)</sup>	103	12069	58	4836
Violators	28	—	2	—
<b>TOTAL</b>	<b>5878</b>	<b>15160</b>	<b>2648</b>	<b>5828</b>
RATES	HOV Lane		Mixed Flow Lanes	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.6 persons/veh		2.7 persons/veh	
Mixed Flow occupancy rate	1.2 persons/veh		1.1 persons/veh	
Overall occupancy (incl. buses)	1.4 persons/veh		1.4 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	1.3 %		0.2 %	

- NOTES:** (1) Two or more occupants per vehicle.  
(2) Hybrid HOV Lane only/Single Occupancy mixed flow lanes only.  
(3) Violation rate =  $\frac{\text{no. of violators in HOV lane}}{\text{Total no. of vehicles in HOV lane}} \times 100\%$   
(4) HOV lane in operation from 4:30 to 7:00 P.M.  
(5) Observations conducted 10/01/09 at Manuel Freitas Truck Scale.

# MARIN-101

Route 37 to Mission Avenue

## Violation History

Southbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
<b>A.M. PEAK</b>	Thu Mar 12, 2009	6:30 - 8:30 AM	1225	1.5%
	Thu Oct 9, 2008	6:30 - 8:30 AM	1749	2.0%
	Thu Sep 13, 2007	6:30 - 8:30 AM	2141	1.1%
	Tue Oct 3, 2006	6:30 - 8:30 AM	2174	1.4%
	Wed Nov 2, 2005	6:30 - 8:30 AM	2276	1.3%
	Wed Nov 3, 2004	6:30 - 8:30 AM	2343	1.9%
	Thu Apr 3, 2003	6:30 - 8:30 AM	2335	2.2%
	Tue Mar 19, 2002	6:30 - 8:30 AM	2564	1.2%
	Wed Oct 31, 2001	6:30 - 8:30 AM	2520	1.4%
	Wed Mar 22, 2000	6:30 - 8:30 AM	2610	1.1%
	Thu Mar 18, 1999	6:30 - 8:30 AM	2256	1.8%

**NOTES:** (a) *Minimum occupancy requirement was reduced to 2 persons per vehicle on October 1, 1988*  
(b) *Morning period of operation from 6:30 to 8:30 AM.*



# MARIN-101

Mission Avenue to Route 37

## Violation History

Northbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
<b>P.M. PEAK</b>	Thu Oct 1, 2009	4:30 - 7:00 PM	2219	<b>1.3%</b>
	Thu Apr 3, 2008	4:30 - 7:00 PM	1724	<b>0.9%</b>
	Thu Sep 13, 2007	4:30 - 7:00 PM	1874	<b>1.1%</b>
	Wed Apr 5, 2006	4:30 - 7:00 PM	1559	<b>2.2%</b>
	Thu Apr 21, 2005	4:30 - 7:00 PM	1545	<b>4.0%</b>
	Thu Oct 7, 2004	4:30 - 7:00 PM	1577	<b>2.5%</b>
	Wed Apr 9, 2003	4:30 - 7:00 PM	1851	<b>3.2%</b>
	Thu Sep 19, 2002	4:30 - 7:00 PM	1552	<b>2.6%</b>
	Tue Sep 18, 2001	4:30 - 7:00 PM	1580	<b>1.1%</b>
	Tue Mar 21, 2000	4:30 - 7:00 PM	1921	<b>2.7%</b>
	Thu Sep 16, 1999	4:30 - 7:00 PM	1841	<b>4.0%</b>

**NOTES:** (a) Minimum occupancy requirement was reduced to 2 persons per vehicle on October 1, 1988  
(b) Evening period of operation from 4:30 to 7:00 PM.

# SANTA CLARA-85

Route 101(Mountain View) to Route 280

# Southbound - P.M.

Typical data for 2009 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup> 3:00 - 6:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	102	13	49	6
Buses	8	9	5	1
Carpools <sup>(1)</sup>	1983	522	852	109
Vanpools	4	0	2	0
Hybrid/Single Occ. <sup>(2)</sup>	266	10842	178	3722
Violators	46	—	9	—
<b>TOTAL</b>	<b>2409</b>	<b>11386</b>	<b>1095</b>	<b>3838</b>
PERSONS	HOV Lane		Mixed Flow Lanes	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	102	13	49	6
Buses	280	315	175	35
Carpools <sup>(1)</sup>	4102	1168	1733	249
Vanpools	40	0	20	0
Hybrid/Single Occ. <sup>(2)</sup>	266	10842	178	3722
Violators	46	—	9	—
<b>TOTAL</b>	<b>4836</b>	<b>12338</b>	<b>2164</b>	<b>4012</b>
RATES	HOV Lane		Mixed Flow Lanes	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.0 persons/veh		2.0 persons/veh	
Mixed Flow occupancy rate	1.1 persons/veh		1.0 persons/veh	
Overall occupancy (incl. buses)	1.2 persons/veh		1.3 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	1.9 %		0.8 %	

**NOTES:** (1) Two or more occupants per vehicle.

(2) Hybrid HOV Lane only/Single Occupancy mixed flow lanes only

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane}}{\text{Total no. of vehicles in HOV lane}} \times 100\%$

(4) HOV lane in operation from 3:00 to 7:00 P.M.

(5) Observations conducted 04/30/09 at Fremont Avenue I/C

# SANTA CLARA-85

Route 280 to Route 101 (Mountain View)

# Northbound - A.M.

Typical data for 2009 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup> 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	159	8	52	3
Buses	16	10	5	3
Carpools <sup>(1)</sup>	1783	141	713	53
Vanpools	21	0	7	0
Hybrid/Single Occ. <sup>(2)</sup>	503	9859	161	3790
Violators	45	—	9	—
<b>TOTAL</b>	<b>2527</b>	<b>10018</b>	<b>947</b>	<b>3849</b>

PERSONS	PEAK PERIOD <sup>(4)</sup> 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	159	8	52	3
Buses	560	350	175	105
Carpools <sup>(1)</sup>	3952	303	1593	110
Vanpools	210	0	70	0
Hybrid/Single Occ. <sup>(2)</sup>	503	9859	161	3790
Violators	45	—	9	—
<b>TOTAL</b>	<b>5429</b>	<b>10520</b>	<b>2060</b>	<b>4008</b>

RATES	PEAK PERIOD <sup>(4)</sup> 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.1 persons/veh		2.2 persons/veh	
Mixed Flow occupancy rate	1.1 persons/veh		1.0 persons/veh	
Overall occupancy (incl. buses)	1.3 persons/veh		1.3 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	1.8 %		1.0 %	

- NOTES:** (1) Two or more occupants per vehicle.  
 (2) Hybrid HOV Lane only/Single Occupancy mixed flow lanes only  
 (3) Violation rate =  $\frac{\text{no. of violators in HOV lane}}{\text{Total no. of vehicles in HOV lane}} \times 100\%$   
 (4) HOV lane in operation from 5:00 to 9:00 A.M.  
 (5) Observations conducted 05/12/09 at Fremont Avenue I/C

# SANTA CLARA-85

Route 101 (Mountain View) to Route 280

## Violation History

Southbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
<b>A.M. PEAK</b>	Year 2009	-	-	-
	Year 2008	-	-	-
	Year 2007	-	-	-
	Year 2006	-	-	-
	Year 2005	-	-	-
	Year 2004	-	-	-
	Year 2003	-	-	-
	Wed Oct 23, 2002	7:00 - 9:00 AM	540	<b>10.0%</b>
	Thu Jun 7, 2001	6:00 - 9:00 AM	560	<b>4.1%</b>
	Wed Sep 27, 2000	6:00 - 9:00 AM	604	<b>13.2%</b>
	Tue Jun 8, 1999	6:00 - 9:00 AM	597	<b>9.4%</b>

<b>P.M. PEAK</b>	Thu Apr 30, 2009	3:00 - 6:00 PM	2409	<b>1.9%</b>
	Tue Sep 30, 2008	3:00 - 6:00 PM	2853	<b>2.7%</b>
	Wed Dec 12, 2007	3:00 - 6:00 PM	2947	<b>4.0%</b>
	Tue Oct 24, 2006	3:00 - 6:00 PM	2164	<b>0.5%</b>
	Wed Oct 12, 2005	3:00 - 6:00 PM	2265	<b>0.7%</b>
	Tue Nov 30, 2004	3:00 - 5:15 PM	1510	<b>0.7%</b>
	Wed Jun 4, 2003	3:00 - 6:00 PM	2323	<b>1.6%</b>
	Wed May 29, 2002	3:00 - 6:00 PM	2647	<b>4.4%</b>
	Tue Sep 25, 2001	3:00 - 6:00 PM	2656	<b>6.4%</b>
	Thu Jun 1, 2000	3:00 - 6:00 PM	2792	<b>0.9%</b>
	Thu May 13, 1999	3:00 - 6:00 PM	3121	<b>1.4%</b>

**NOTES:** (a) Morning period of operation from 5:00 to 9:00 AM.  
(b) Evening period of operation from 3:00 to 7:00 PM.  
(c) Data was not collected in 2009 off-peak direction

# SANTA CLARA-85

Route 280 to Route 101 (Mountain View)

## Violation History

Northbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
<b>A.M. PEAK</b>	Tue May 12, 2009	6:00 - 9:00 AM	2527	1.8%
	Wed Dec 10, 2008	6:00 - 9:00 AM	2168	2.0%
	Tue Apr 17, 2007	6:00 - 9:00 AM	2722	0.0%
	Wed Oct 11, 2006	6:00 - 9:00 AM	2501	0.7%
	Tue Oct 18, 2005	6:00 - 9:00 AM	1703	3.0%
	Wed Nov 3, 2004	6:00 - 9:00 AM	2132	0.7%
	Wed Oct 29, 2003	6:00 - 9:00 AM	1151	0.8%
	Tue Oct 8, 2002	7:00 - 9:00 AM	1435	1.5%
	Tue Apr 10, 2001	6:00 - 9:00 AM	2471	1.8%
	Tue Oct 17, 2000	7:00 - 9:00 AM	2188	10.1%
	Wed Oct 6, 1999	6:00 - 9:00 AM	2402	4.9%
<b>P.M. PEAK</b>	Year 2009	-	-	-
	Year 2008	-	-	-
	Year 2007	-	-	-
	Year 2006	-	-	-
	Year 2005	-	-	-
	Year 2004	-	-	-
	Year 2003	-	-	-
	Thu Oct 31, 2002	3:00 - 5:30 PM	761	2.2%
	Wed Oct 10, 2001	3:00 - 6:00 PM	1124	0.4%
	Thu May 4, 2000	3:00 - 6:00 PM	940	2.1%
	Thu Oct 28, 1999	3:00 - 6:00 PM	845	1.2%

**NOTES:** (a) Morning period of operation from 5:00 to 9:00 AM.  
(b) Evening period of operation from 3:00 to 7:00 PM.  
(c) Data was not collected in 2009 for off-peak direction

# SANTA CLARA-85

Route 280 to Almaden Expressway

# Southbound - P.M.

Typical data for 2009 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup> 3:00 - 6:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	80	12	49	4
Buses	18	11	7	4
Carpools <sup>(1)</sup>	2618	706	990	136
Vanpools	6	2	0	0
Hybrid/Single Occ. <sup>(2)</sup>	241	10774	144	3819
Violators	35	—	12	—
<b>TOTAL</b>	2998	11505	1202	3963
PERSONS	HOV Lane		Mixed Flow Lanes	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	80	12	49	4
Buses	630	385	245	140
Carpools <sup>(1)</sup>	5478	1498	2075	282
Vanpools	60	20	0	0
Hybrid/Single Occ. <sup>(2)</sup>	241	10774	144	3819
Violators	35	—	12	—
<b>TOTAL</b>	6524	12689	2525	4245
RATES	HOV Lane		Mixed Flow Lanes	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.2 persons/veh		2.1 persons/veh	
Mixed Flow occupancy rate	1.1 persons/veh		1.1 persons/veh	
Overall occupancy (incl. buses)	1.3 persons/veh		1.3 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	1.2 %		1.0 %	

- NOTES:** (1) Two or more occupants per vehicle.  
(2) Hybrid HOV Lane only/Single Occupancy mixed flow lanes only.  
(3) Violation rate =  $\frac{\text{no. of violators in HOV lane}}{\text{Total no. of vehicles in HOV lane}} \times 100\%$   
(4) HOV lane in operation from 3:00 to 7:00 P.M.  
(5) Observations conducted 04/01/09 at Winchester Boulevard I/C

# SANTA CLARA-85

Almaden Expressway to Route 280

# Northbound - A.M.

Typical data for 2009 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup> 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	85	3	35	0
Buses	11	20	5	7
Carpools <sup>(1)</sup>	2270	208	940	114
Vanpools	15	1	4	0
Hybrid/Single Occ. <sup>(2)</sup>	273	8245	114	2714
Violators	67	—	20	—
<b>TOTAL</b>	<b>2721</b>	<b>8477</b>	<b>1118</b>	<b>2835</b>

PERSONS	PEAK PERIOD <sup>(4)</sup> 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	85	3	35	0
Buses	385	700	175	245
Carpools <sup>(1)</sup>	4690	456	1952	247
Vanpools	150	10	40	0
Hybrid/Single Occ. <sup>(2)</sup>	273	8245	114	2714
Violators	67	—	20	—
<b>TOTAL</b>	<b>5650</b>	<b>9414</b>	<b>2336</b>	<b>3206</b>

RATES	PEAK PERIOD <sup>(4)</sup> 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.1 persons/veh		2.1 persons/veh	
Mixed Flow occupancy rate	1.1 persons/veh		1.1 persons/veh	
Overall occupancy (incl. buses)	1.3 persons/veh		1.4 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	2.5 %		1.8 %	

- NOTES:** (1) Two or more occupants per vehicle.  
 (2) Hybrid HOV Lane only/Single Occupancy mixed flow lanes only  
 (3) Violation rate =  $\frac{\text{no. of violators in HOV lane}}{\text{Total no. of vehicles in HOV lane}} \times 100\%$   
 (4) HOV lane in operation from 5:00 to 9:00 A.M.  
 (5) Observations conducted 03/25/09 at Union Avenue I/C

# SANTA CLARA-85

Route 280 to Almaden Expressway

## Violation History

Southbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
<b>A.M. PEAK</b>	Year 2009	-	-	-
	Year 2008	-	-	-
	Year 2007	-	-	-
	Year 2006	-	-	-
	Year 2005	-	-	-
	Year 2004	-	-	-
	Year 2003	-	-	-
	Wed May 1, 2002	6:00 - 9:00 AM	256	9.0%
	Tue Apr 17, 2001	6:00 - 9:00 AM	341	5.9%
	Tue May 2, 2000	6:00 - 9:00 AM	363	1.7%
	Thu Mar 11, 1999	6:30 - 9:00 AM	371	0.3%
<b>P.M. PEAK</b>	Wed Apr 1, 2009	3:00 - 6:00 PM	2998	1.2%
	Tue Apr 22, 2008	3:00 - 6:00 PM	3226	4.0%
	Tue Dec 4, 2007	3:00 - 6:00 PM	3259	1.1%
	Tue May 16, 2006	3:00 - 6:00 PM	2429	0.2%
	Thu Oct 13, 2005	3:00 - 6:00 PM	2311	0.9%
	Wed Oct 6, 2004	3:00 - 6:00 PM	2288	0.5%
	Wed Oct 22, 2003	3:00 - 6:00 PM	2151	2.3%
	Wed Mar 13, 2002	3:00 - 6:00 PM	2866	3.4%
	Thu Apr 5, 2001	3:00 - 6:00 PM	2798	0.5%
	Tue Apr 18, 2000	3:00 - 6:00 PM	3056	0.5%
	Thu Mar 11, 1999	3:00 - 6:00 PM	2963	0.1%

**NOTES:** (a) Morning period of operation from 5:00 to 9:00 AM.  
(b) Evening period of operation from 3:00 to 7:00 PM.  
(c) Data was not collected in 2009 for off-peak direction



# SANTA CLARA-85

Almaden Expressway to Route 280

## Violation History

Northbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
<b>A.M. PEAK</b>	Wed Mar 25, 2009	6:00 - 9:00 AM	2721	2.5%
	Thu May 1, 2008	6:00 - 9:00 AM	2421	1.1%
	Thu Nov 1, 2007	6:00 - 9:00 AM	2564	2.5%
	Wed Sep 27, 2006	6:00 - 9:00 AM	3298	1.2%
	Thu Oct 6, 2005	6:00 - 9:00 AM	2418	0.4%
	Thu Oct 28, 2004	7:00 - 9:00 AM	1813	0.4%
	Wed Oct 22, 2003	7:00 - 9:00 AM	2012	0.0%
	Wed Mar 27, 2002	6:00 - 9:00 AM	2572	4.6%
	Tues Oct 16, 2001	6:00 - 9:00 AM	3298	6.4%
	Wed Jun 7, 2000	6:00 - 9:00 AM	3555	9.9%
	Tue Oct 26, 1999	7:00 - 9:00 AM	2350	3.0%
<b>P.M. PEAK</b>	Year 2009	-	-	-
	Year 2008	-	-	-
	Year 2007	-	-	-
	Year 2006	-	-	-
	Year 2005	-	-	-
	Year 2004	-	-	-
	Year 2003	-	-	-
	Thu Apr 4, 2002	3:00 - 6:00 PM	1068	7.5%
	Tue Jun 12, 2001	3:00 - 6:00 PM	985	8.9%
	Tue Oct 17, 2000	3:00 - 6:00 PM	642	3.6%
	Tue Feb 23, 1999	3:00 - 6:00 PM	866	8.7%

**NOTES:** (a) Morning period of operation from 5:00 to 9:00 AM.  
(b) Evening period of operation from 3:00 to 7:00 PM.  
(c) Data was not collected in 2009 for off-peak direction

# SANTA CLARA-85

Almaden Expressway to Route 101 (So. San Jose)

## Southbound - P.M.

Typical data for 2009 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup> 3:00 - 6:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	62	21	29	13
Buses	5	12	0	4
Carpools <sup>(1)</sup>	1891	1102	731	279
Vanpools	4	6	2	1
Hybrid/Single Occ. <sup>(2)</sup>	103	8664	58	3133
Violators	16	—	4	—
<b>TOTAL</b>	<b>2081</b>	<b>9805</b>	<b>824</b>	<b>3430</b>

PERSONS	PEAK PERIOD <sup>(4)</sup> 3:00 - 6:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	62	21	29	13
Buses	175	420	0	140
Carpools <sup>(1)</sup>	3851	2372	1498	610
Vanpools	40	60	20	10
Hybrid/Single Occ. <sup>(2)</sup>	103	8664	58	3133
Violators	16	—	4	—
<b>TOTAL</b>	<b>4247</b>	<b>11537</b>	<b>1609</b>	<b>3906</b>

RATES	PEAK PERIOD <sup>(4)</sup> 3:00 - 6:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.0 persons/veh		2.0 persons/veh	
Mixed Flow occupancy rate	1.2 persons/veh		1.1 persons/veh	
Overall occupancy (incl. buses)	1.3 persons/veh		1.3 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	0.8 %		0.5 %	

**NOTES:** (1) Two or more occupants per vehicle.

(2) Hybrid HOV Lane only/Single Occupancy mixed flow lanes only

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane}}{\text{Total no. of vehicles in HOV lane}} \times 100\%$

(4) HOV lane in operation from 3:00 to 7:00 P.M.

(5) Observations conducted 03/25/09 at Blossom Hill Road I/C

# SANTA CLARA-85

Route 101(So. San Jose) to Almaden Expressway

## Northbound - A.M.

Typical data for 2009 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup> 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	59	39	21	15
Buses	2	47	1	21
Carpools <sup>(1)</sup>	1295	381	578	171
Vanpools	5	3	0	0
Hybrid/Single Occ. <sup>(2)</sup>	98	8834	34	3048
Violators	24	—	6	—
<b>TOTAL</b>	1483	9304	640	3255
PERSONS	HOV Lane		Mixed Flow Lanes	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	59	39	21	15
Buses	70	1645	35	735
Carpools <sup>(1)</sup>	2673	835	1203	378
Vanpools	50	30	0	0
Hybrid/Single Occ. <sup>(2)</sup>	98	8834	34	3048
Violators	24	—	6	—
<b>TOTAL</b>	2974	11383	1299	4176
RATES	HOV Lane		Mixed Flow Lanes	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.0 persons/veh		2.0 persons/veh	
Mixed Flow occupancy rate	1.2 persons/veh		1.3 persons/veh	
Overall occupancy (incl. buses)	1.3 persons/veh		1.4 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	1.6 %		0.9 %	

**NOTES:** (1) Two or more occupants per vehicle.

(2) Hybrid HOV Lane only/Single Occupancy mixed flow lanes only

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane}}{\text{Total no. of vehicles in HOV lane}} \times 100\%$

(4) HOV lane in operation from 5:00 to 9:00 A.M.

(5) Observations conducted 05/13/09 at Blossom Hill Road Train Station

# SANTA CLARA-85

Almaden Expressway to Route 101 (So. San Jose)

## Violation History

Southbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
<b>A.M. PEAK</b>	Year 2009	-	-	-
	Year 2008	-	-	-
	Year 2007	-	-	-
	Year 2006	-	-	-
	Year 2005	-	-	-
	Year 2004	-	-	-
	Year 2003	-	-	-
	Wed Apr 24, 2002	6:00 - 9:00 AM	675	0.3%
	Wed May 2, 2001	6:00 - 9:00 AM	595	1.7%
	Wed May 3, 2000	6:00 - 9:00 AM	635	7.1%
	Wed Feb 3, 1999	6:00 - 9:00 AM	739	0.0%
<b>P.M. PEAK</b>	Wed Mar 25, 2009	3:00 - 6:00 PM	2081	0.8%
	Thu May 1, 2008	3:00 - 6:00 PM	2606	1.2%
	Wed Mar 21, 2007	3:00 - 6:00 PM	2005	3.2%
	Thu Apr 20, 2006	3:00 - 6:00 PM	1547	3.4%
	Thu Sep 29, 2005	3:00 - 6:00 PM	1601	0.9%
	Thu Oct 14, 2004	3:00 - 6:00 PM	2050	0.2%
	Thu Jun 5, 2003	3:00 - 6:00 PM	1652	0.6%
	Thu May 2, 2002	3:00 - 6:00 PM	1981	3.8%
	Wed Oct 3, 2001	3:00 - 6:00 PM	2418	0.2%
	Wed Oct 18, 2000	3:00 - 6:00 PM	2354	0.6%
	Tue May 18, 1999	3:00 - 6:00 PM	2112	2.5%

**NOTES:** (a) Morning period of operation from 5:00 to 9:00 AM.  
(b) Evening period of operation from 3:00 to 7:00 PM.  
(c) Data was not collected in 2009 for off-peak direction

# SANTA CLARA-85

Route 101 (So. San Jose) to Almaden Expressway

## Violation History

Northbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
<b>A.M. PEAK</b>	Wed May 13, 2009	6:00 - 9:00 AM	1483	1.6%
	Tue Apr 8, 2008	6:00 - 9:00 AM	1439	1.1%
	Tue May 22, 2007	6:00 - 9:00 AM	1542	0.7%
	Tue May 23, 2006	6:00 - 9:00 AM	1131	3.8%
	Thu Oct 13, 2005	6:00 - 9:00 AM	960	2.4%
	Tue Nov 30, 2004	6:00 - 9:00 AM	1044	0.0%
	Thu Oct 23, 2003	7:00 - 9:00 AM	1035	0.0%
	Tue Mar 12, 2002	6:00 - 9:00 AM	939	2.6%
	Thu Apr 12, 2001	6:00 - 9:00 AM	1678	7.3%
	Thu Oct 5, 2000	7:00 - 9:00 AM	1222	5.2%
	Tue Oct 5, 1999	6:00 - 9:00 AM	1669	1.1%
<b>P.M. PEAK</b>	Year 2009	-	-	-
	Year 2008	-	-	-
	Year 2007	-	-	-
	Year 2006	-	-	-
	Year 2005	-	-	-
	Year 2004	-	-	-
	Year 2003	-	-	-
	Wed Apr 24, 2002	3:00 - 6:00 PM	976	5.0%
	Tue Oct 9, 2001	3:00 - 6:00 PM	814	8.6%
	Wed May 3, 2000	3:00 - 6:00 PM	784	5.6%
	Thu Nov 17, 1999	3:00 - 5:30 PM	826	6.5%

**NOTES:** (a) Morning period of operation from 5:00 to 9:00 AM.  
 (b) Evening period of operation from 3:00 to 7:00 PM.  
 (c) Data was not collected in 2009 for off-peak direction

# SANTA CLARA-87

Route 101 I/C to Route 280 I/C

## Southbound - P.M.

Typical data for 2009 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup> 3:00 - 6:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	74	5	26	2
Buses	2	52	2	8
Carpools <sup>(1)</sup>	1141	405	605	88
Vanpools	10	12	2	1
Hybrid/Single Occ. <sup>(2)</sup>	130	8458	74	3062
Violators	35	—	12	—
<b>TOTAL</b>	1392	8932	721	3161
PERSONS	HOV Lane		Mixed Flow Lanes	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	74	5	26	2
Buses	70	1820	70	280
Carpools <sup>(1)</sup>	2335	875	1222	186
Vanpools	100	120	20	10
Hybrid/Single Occ. <sup>(2)</sup>	130	8458	74	3062
Violators	35	—	12	—
<b>TOTAL</b>	2744	11278	1424	3540
RATES	HOV Lane		Mixed Flow Lanes	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.0 persons/veh		2.0 persons/veh	
Mixed Flow occupancy rate	1.3 persons/veh		1.1 persons/veh	
Overall occupancy (incl. buses)	1.4 persons/veh		1.3 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	2.5 %		1.7 %	

- NOTES:** (1) Two or more occupants per vehicle.  
(2) Hybrid HOV Lane only/Single Occupancy mixed flow lanes only  
(3) Violation rate =  $\frac{\text{no. of violators in HOV lane}}{\text{Total no. of vehicles in HOV lane}} \times 100\%$   
(4) HOV lane in operation from 3:00 to 7:00 P.M.  
(5) Observations conducted 03/19/09 at Taylor Avenue I/C

# SANTA CLARA-87

Route 280 I/C to Route 101 I/C

## Northbound - A.M.

Typical data for 2009 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup> 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	117	27	49	9
Buses	4	8	3	0
Carpools <sup>(1)</sup>	1615	232	648	111
Vanpools	11	7	3	3
Hybrid/Single Occ. <sup>(2)</sup>	32	8465	17	3039
Violators	7	—	3	—
<b>TOTAL</b>	<b>1786</b>	<b>8739</b>	<b>723</b>	<b>3162</b>

PERSONS	PEAK PERIOD <sup>(4)</sup> 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	117	27	49	9
Buses	140	280	105	0
Carpools <sup>(1)</sup>	3320	476	1338	228
Vanpools	110	70	30	30
Hybrid/Single Occ. <sup>(2)</sup>	32	8465	17	3039
Violators	7	—	3	—
<b>TOTAL</b>	<b>3726</b>	<b>9318</b>	<b>1542</b>	<b>3306</b>

RATES	PEAK PERIOD <sup>(4)</sup> 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.1 persons/veh		2.1 persons/veh	
Mixed Flow occupancy rate	1.1 persons/veh		1.0 persons/veh	
Overall occupancy (incl. buses)	1.2 persons/veh		1.2 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	0.4 %		0.4 %	

- NOTES:** (1) Two or more occupants per vehicle.  
 (2) Hybrid HOV Lane only/Single Occupancy mixed flow lanes only  
 (3) Violation rate =  $\frac{\text{no. of violators in HOV lane}}{\text{Total no. of vehicles in HOV lane}} \times 100\%$   
 (4) HOV lane in operation from 5:00 to 9:00 A.M.  
 (5) Observations conducted 09/24/09 at Taylor Avenue I/C

# SANTA CLARA-87

Rte 101 I/C to Route 280 I/C

## Violation History

Southbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
<b>A.M. PEAK</b>	Year 2009	-	-	-
	Year 2008	-	-	-
	Year 2007	-	-	-

<b>P.M. PEAK</b>	Thu Mar 19, 2009	3:00-6:00 PM	1392	<b>2.5%</b>
	Wed Apr 9, 2008	3:00-6:00 PM	1496	<b>2.9%</b>
	Wed Oct 3, 2007	3:00-6:00 PM	1373	<b>0.8%</b>

**NOTES:** (a) Morning period of operation from 5:00 to 9:00 AM.  
(b) Evening period of operation from 3:00 to 7:00 PM.  
(c) Data was not collected in 2009 for off-peak direction



# SANTA CLARA-87

Route 280 I/C to Route 101 I/C

## Violation History

Northbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
<b>A.M. PEAK</b>	Thu Sep 24, 2009	6:00 - 9:00 AM	1786	<b>0.4%</b>
	Thu Nov 13, 2008	6:00 - 9:00 AM	1256	<b>6.4%</b>
	Tue Sep 25, 2007	6:00 - 9:00 AM	1048	<b>7.6%</b>
	Thu Sep 21, 2006	6:00 - 9:00 AM	532	<b>1.7%</b>
	Tue Nov 8, 2005	6:00 - 9:00 AM	494	<b>3.2%</b>

<b>P.M. PEAK</b>	Year 2009	-	-	-
	Year 2008	-	-	-
	Year 2007	-	-	-
	Year 2006	-	-	-
	Year 2005	-	-	-

**NOTES:** (a) Morning period of operation from 5:00 to 9:00 AM.  
(b) Evening period of operation from 3:00 to 7:00 PM.  
(c) Data was not collected in 2009 for off-peak direction

# SANTA CLARA-87

Route 280 I/C to Route 85 I/C

## Southbound - P.M.

Typical data for 2009 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup> 3:00 - 6:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	69	23	29	9
Buses	15	24	4	5
Carpools <sup>(1)</sup>	1371	1608	561	649
Vanpools	8	4	3	0
Hybrid/Single Occ. <sup>(2)</sup>	55	10307	35	3762
Violators	23	—	3	—
<b>TOTAL</b>	<b>1541</b>	<b>11966</b>	<b>635</b>	<b>4425</b>
PERSONS	HOV Lane		Mixed Flow Lanes	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	69	23	29	9
Buses	525	840	140	175
Carpools <sup>(1)</sup>	2892	3537	1176	1412
Vanpools	80	40	30	0
Hybrid/Single Occ. <sup>(2)</sup>	55	10307	35	3762
Violators	23	—	3	—
<b>TOTAL</b>	<b>3644</b>	<b>14747</b>	<b>1413</b>	<b>5358</b>
RATES	HOV Lane		Mixed Flow Lanes	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.4 persons/veh		2.2 persons/veh	
Mixed Flow occupancy rate	1.2 persons/veh		1.2 persons/veh	
Overall occupancy (incl. buses)	1.4 persons/veh		1.3 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	1.5 %		0.5 %	

**NOTES:** (1) Two or more occupants per vehicle.

(2) Hybrid HOV Lane only/Single Occupancy mixed flow lanes only

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane}}{\text{Total no. of vehicles in HOV lane}} \times 100\%$

(4) HOV lane in operation from 3:00 to 7:00 P.M.

(5) Observations conducted 05/13/09 at Capitol Avenue I/C

# SANTA CLARA-87

Route 85 I/C to Route 280 I/C

## Northbound - A.M.

Typical data for 2009 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup> 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	16	17	12	9
Buses	10	2	5	1
Carpools <sup>(1)</sup>	3187	251	1151	101
Vanpools	15	5	7	4
Hybrid/Single Occ. <sup>(2)</sup>	184	10568	104	3602
Violators	62	—	32	—
<b>TOTAL</b>	<b>3474</b>	<b>10843</b>	<b>1311</b>	<b>3717</b>

PERSONS	PEAK PERIOD <sup>(4)</sup> 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	16	17	12	9
Buses	350	70	175	35
Carpools <sup>(1)</sup>	6439	567	2326	231
Vanpools	150	50	70	40
Hybrid/Single Occ. <sup>(2)</sup>	184	10568	104	3602
Violators	62	—	32	—
<b>TOTAL</b>	<b>7201</b>	<b>11272</b>	<b>2719</b>	<b>3917</b>

RATES	PEAK PERIOD <sup>(4)</sup> 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.1 persons/veh		2.1 persons/veh	
Mixed Flow occupancy rate	1.0 persons/veh		1.1 persons/veh	
Overall occupancy (incl. buses)	1.3 persons/veh		1.3 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	1.8 %		2.4 %	

**NOTES:** (1) Two or more occupants per vehicle.

(2) Hybrid HOV Lane only/Single Occupancy mixed flow lanes only

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane}}{\text{Total no. of vehicles in HOV lane}} \times 100\%$

(4) HOV lane in operation from 5:00 to 9:00 A.M.

(5) Observations conducted 12/02/09 at Curtner Avenue I/C

# SANTA CLARA-87

Route 280 I/C to Jct Rte 85

## Violation History

Southbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
<b>A.M. PEAK</b>	Year 2009	-	-	-
	Year 2008	-	-	-
	Year 2007	-	-	-
<b>P.M. PEAK</b>	Wed May 13, 2009	3:00-6:00 PM	1541	1.5%
	Thu Oct 16, 2008	3:00-6:00 PM	1433	3.8%
	Wed June 13, 2007	3:00-6:00 PM	1326	5.2%

**NOTES:** (a) Morning period of operation from 5:00 to 9:00 AM.  
(b) Evening period of operation from 3:00 to 7:00 PM.  
(c) Data was not collected in 2009 for off-peak direction

# SANTA CLARA-87

Jct Rte 85 to Route 280 I/C

## Violation History

Northbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
<b>A.M. PEAK</b>	Wed Dec 2, 2009	6:00 - 9:00 AM	3474	<b>1.8%</b>
	Wed Oct 29, 2008	6:00 - 9:00 AM	2838	<b>1.3%</b>
	Thu Oct 11, 2007	6:00 - 9:00 AM	2021	<b>0.7%</b>
<b>P.M. PEAK</b>	Year 2009	-	-	-
	Year 2008	-	-	-
	Year 2007	-	-	-

**NOTES:** (a) Morning period of operation from 5:00 to 9:00 AM.  
(b) Evening period of operation from 3:00 to 7:00 PM.  
(c) Data was not collected in 2009 for off-peak direction

# SANTA CLARA-101

SM/SCL County Line to Ellis Street

## Southbound - A.M.

Typical data for 2009 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup>		PEAK HOUR	
	6:00 - 9:00 AM		8:00 - 9:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	80	10	50	1
Buses	28	14	20	9
Carpools <sup>(1)</sup>	1777	242	870	62
Vanpools	10	7	5	2
Hybrid/Single Occ. <sup>(2)</sup>	95	11683	53	4920
Violators	83	—	38	—
<b>TOTAL</b>	<b>2073</b>	<b>11956</b>	<b>1036</b>	<b>4994</b>
PERSONS	HOV Lane		Mixed Flow Lanes	
	HOV Lane		Mixed Flow Lanes	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	80	10	50	1
Buses	980	490	700	315
Carpools <sup>(1)</sup>	3800	523	1871	137
Vanpools	100	70	50	20
Hybrid/Single Occ. <sup>(2)</sup>	95	11683	53	4920
Violators	83	—	38	—
<b>TOTAL</b>	<b>5138</b>	<b>12776</b>	<b>2762</b>	<b>5393</b>
RATES	HOV Lane		Mixed Flow Lanes	
	HOV Lane		Mixed Flow Lanes	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.5 persons/veh		2.7 persons/veh	
Mixed Flow occupancy rate	1.1 persons/veh		1.1 persons/veh	
Overall occupancy (incl. buses)	1.3 persons/veh		1.4 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	4.0 %		3.7 %	

- NOTES:** (1) Two or more occupants per vehicle.  
(2) Hybrid HOV lane only/Single Occupancy mixed flow lanes only  
(3) Violation rate =  $\frac{\text{no. of violators in HOV lane}}{\text{Total no. of vehicles in HOV lane}} \times 100\%$   
(4) HOV lane in operation from 5:00 to 9:00 A.M.  
(5) Observations conducted 04/21/09 at the San Antonio Road I/C

# SANTA CLARA-101

SM/SCL County Line to Ellis Street

## Southbound - P.M.

Typical data for 2009 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup> 3:00 - 6:00 PM		PEAK HOUR 4:00 - 5:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	74	21	37	7
Buses	10	10	4	3
Carpools <sup>(1)</sup>	2529	1061	990	523
Vanpools	18	8	6	2
Hybrid/Single Occ. <sup>(2)</sup>	311	13954	102	4687
Violators	15	—	3	—
<b>TOTAL</b>	<b>2957</b>	<b>15054</b>	<b>1142</b>	<b>5222</b>
PERSONS	PEAK PERIOD <sup>(4)</sup> 3:00 - 6:00 PM		PEAK HOUR 4:00 - 5:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	74	21	37	7
Buses	350	350	140	105
Carpools <sup>(1)</sup>	5368	2266	2097	1086
Vanpools	180	80	60	20
Hybrid/Single Occ. <sup>(2)</sup>	311	13954	102	4687
Violators	15	—	3	—
<b>TOTAL</b>	<b>6298</b>	<b>16671</b>	<b>2439</b>	<b>5905</b>
RATES	PEAK PERIOD <sup>(4)</sup> 3:00 - 6:00 PM		PEAK HOUR 4:00 - 5:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.1 persons/veh		2.1 persons/veh	
Mixed Flow occupancy rate	1.1 persons/veh		1.1 persons/veh	
Overall occupancy (incl. buses)	1.3 persons/veh		1.3 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	0.5 %		0.3 %	

- NOTES:** (1) Two or more occupants per vehicle.  
(2) Hybrid HOV lane only/Single Occupancy mixed flow lanes only  
(3) Violation rate =  $\frac{\text{no. of violators in HOV lane}}{\text{Total no. of vehicles in HOV lane}} \times 100\%$   
(4) HOV lane in operation from 3:00 to 7:00 P.M.  
(5) Observations conducted 04/22/09 at the San Antonio Road I/C

# SANTA CLARA-101

Ellis Street to SCL/SM County Line

## Northbound - A.M.

Typical data for 2009 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup> 6:00 - 9:00 AM		PEAK HOUR 8:00 - 9:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	130	28	68	10
Buses	6	26	3	8
Carpools <sup>(1)</sup>	2039	435	774	187
Vanpools	0	7	0	5
Hybrid/Single Occ. <sup>(2)</sup>	83	15596	49	5583
Violators	6	—	1	—
<b>TOTAL</b>	<b>2264</b>	<b>16092</b>	<b>895</b>	<b>5793</b>
PERSONS	HOV Lane		Mixed Flow Lanes	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	130	28	68	10
Buses	210	910	105	280
Carpools <sup>(1)</sup>	4108	979	1561	418
Vanpools	0	70	0	50
Hybrid/Single Occ. <sup>(2)</sup>	83	15596	49	5583
Violators	6	—	1	—
<b>TOTAL</b>	<b>4537</b>	<b>17583</b>	<b>1784</b>	<b>6341</b>
RATES	HOV Lane		Mixed Flow Lanes	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.0 persons/veh		2.0 persons/veh	
Mixed Flow occupancy rate	1.1 persons/veh		1.1 persons/veh	
Overall occupancy (incl. buses)	1.2 persons/veh		1.2 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	0.3 %		0.1 %	

**NOTES:** (1) Two or more occupants per vehicle.

(2) Mixed flow lanes only.

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$

(4) HOV lane in operation from 5:00 to 9:00 A.M.

(5) Observations conducted 12/03/09 at San Antonio Road I/C



# SANTA CLARA-101

Ellis Street to SCL/SM County Line

## Northbound - P.M.

Typical data for 2009 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup> 3:00 - 6:00 PM		PEAK HOUR 4:00 - 5:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	73	24	24	13
Buses	16	22	6	10
Carpools <sup>(1)</sup>	2047	654	706	206
Vanpools	7	20	1	5
Hybrid/Single Occ. <sup>(2)</sup>	206	14996	49	5042
Violators	24	—	5	—
<b>TOTAL</b>	<b>2373</b>	<b>15716</b>	<b>791</b>	<b>5276</b>
PERSONS	HOV Lane		Mixed Flow Lanes	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	73	24	24	13
Buses	560	770	210	350
Carpools <sup>(1)</sup>	4199	1459	1448	464
Vanpools	70	200	10	50
Hybrid/Single Occ. <sup>(2)</sup>	206	14996	49	5042
Violators	24	—	5	—
<b>TOTAL</b>	<b>5132</b>	<b>17449</b>	<b>1746</b>	<b>5919</b>
RATES	HOV Lane		Mixed Flow Lanes	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.2 persons/veh		2.2 persons/veh	
Mixed Flow occupancy rate	1.1 persons/veh		1.1 persons/veh	
Overall occupancy (incl. buses)	1.2 persons/veh		1.3 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	1.0 %		0.6 %	

**NOTES:** (1) Two or more occupants per vehicle.

(2) Hybrid HOV lane only/Single Occupancy mixed flow lanes only

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane}}{\text{Total no. of vehicles in HOV lane}} \times 100\%$

(4) HOV lane in operation from 3:00 to 7:00 P.M.

(5) Observations conducted 10/08/09 at the San Antonio Road I/C

# SANTA CLARA-101

SM/SCL County Line to Ellis Street

## Violation History

Southbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
<b>A.M. PEAK</b>	Tue Apr 21, 2009	6:00 - 9:00 AM	2073	4.0%
	Thu Jun 5, 2008	6:00 - 9:00 AM	1747	0.7%
	Wed Nov 14, 2007	6:00 - 9:00 AM	1702	1.9%
	Tue Dec 5, 2006	6:00 - 9:00 AM	1352	0.7%
	Thu Sep 15, 2005	6:00 - 9:00 AM	1654	0.5%
	Wed Nov 17, 2004	6:00 - 9:00 AM	1762	0.3%
	Thu Oct 30, 2003	6:00 - 9:00 AM	1970	6.6%
	Wed May 15, 2002	6:00 - 9:00 AM	1949	6.6%
	Wed Mar 21, 2001	6:00 - 9:00 AM	2710	0.8%
	Wed Sep 13, 2000	6:00 - 9:00 AM	2823	10.5%
	Wed Apr 28, 1999	6:00 - 9:00 AM	2817	3.3%
<b>P.M. PEAK</b>	Wed Apr 22, 2009	3:00 - 6:00 PM	2957	0.5%
	Tue Nov 18, 2008	3:00 - 6:00 PM	3698	3.1%
	Wed Apr 4, 2007	3:00 - 6:00 PM	2763	0.3%
	Wed Apr 26, 2006	3:00 - 6:00 PM	2509	3.1%
	Wed Mar 30, 2005	3:00 - 6:00 PM	3001	3.6%
	Wed Oct 27, 2004	3:00 - 6:00 PM	2420	0.3%
	Tue Oct 28, 2003	3:00 - 5:45 PM	2608	1.4%
	Tue May 14, 2002	3:00 - 6:00 PM	2119	0.7%
	Wed Oct 24, 2001	3:00 - 6:00 PM	2935	4.4%
	Thu Mar 25, 1999	3:00 - 6:00 PM	3037	1.2%

**NOTES:** (a) Morning period of operation from 5:00 to 9:00 AM.  
(b) Evening period of operation from 3:00 to 7:00 PM.

# SANTA CLARA-101

Ellis Street to SM/SCL County Line

## Violation History

Northbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
<b>A.M. PEAK</b>	Thu Dec 3, 2009	6:00 - 9:00 AM	2264	0.3%
	Tue Sep 30, 2008	6:00 - 9:00 AM	2278	0.2%
	Tue Nov 6, 2007	6:00 - 9:00 AM	2301	0.0%
	Thu Jun 1, 2006	6:00 - 9:00 AM	2581	12.1%
	Thu Sep 22, 2005	6:00 - 9:00 AM	2494	4.5%
	Tue Nov 2, 2004	6:00 - 9:00 AM	1641	0.3%
	Thu May 22, 2003	6:00 - 9:00 AM	2132	5.8%
	Wed Sept 25, 2002	6:45 - 9:00 AM	1479	2.4%
	Thu Oct 4, 2001	6:00 - 9:00 AM	1942	6.0%
	Thu May 18, 2000	6:00 - 9:00 AM	2047	5.1%
	Thu Nov 18, 1999	6:30 - 9:00 AM	1745	2.5%
<b>P.M. PEAK</b>	Thu Oct 8, 2009	3:00 - 6:00 PM	2373	1.0%
	Wed Dec 17, 2008	3:00 - 6:00 PM	2915	0.8%
	Tue Sep 11, 2007	3:00 - 6:00 PM	2700	0.4%
	Tue Dec 5, 2006	3:00 - 6:00 PM	2090	0.1%
	Wed Oct 5, 2005	3:00 - 6:00 PM	1656	0.8%
	Thu Dec 2, 2004	3:00 - 5:00 PM	1369	2.8%
	Tue Jun 3, 2003	3:00 - 6:00 PM	2635	7.2%
	Thu Jun 6, 2002	3:00 - 6:00 PM	3064	2.1%
	Wed Oct 17, 2001	3:00 - 6:00 PM	2523	3.2%
	Tue Nov 7, 2000	3:00 - 6:00 PM	3032	4.6%
	Tue Apr 27, 1999	3:00 - 6:00 PM	3034	1.5%

**NOTES:** (a) Morning period of operation from 5:00 to 9:00 AM.  
(b) Evening period of operation from 3:00 to 7:00 PM.

# SANTA CLARA-101

Ellis Street to Guadalupe Parkway

# Southbound - P.M.

Typical data for 2009 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup> 4:00 - 6:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	69	6	27	3
Buses	11	8	7	4
Carpools <sup>(1)</sup>	1958	289	957	173
Vanpools	3	0	1	0
Hybrid/Single Occ. <sup>(2)</sup>	72	7572	25	3974
Violators	4	—	4	—
<b>TOTAL</b>	<b>2117</b>	<b>7875</b>	<b>1021</b>	<b>4154</b>

PERSONS	PEAK PERIOD <sup>(4)</sup> 4:00 - 6:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	69	6	27	3
Buses	385	280	245	140
Carpools <sup>(1)</sup>	4037	602	1976	361
Vanpools	30	0	10	0
Hybrid/Single Occ. <sup>(2)</sup>	72	7572	25	3974
Violators	4	—	4	—
<b>TOTAL</b>	<b>4597</b>	<b>8460</b>	<b>2287</b>	<b>4478</b>

RATES	PEAK PERIOD <sup>(4)</sup> 4:00 - 6:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.2 persons/veh		2.2 persons/veh	
Mixed Flow occupancy rate	1.1 persons/veh		1.1 persons/veh	
Overall occupancy (incl. buses)	1.3 persons/veh		1.3 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	0.2 %		0.4 %	

**NOTES:** (1) Two or more occupants per vehicle.

(2) Hybrid HOV lane only/Single Occupancy mixed flow lanes only

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane}}{\text{Total no. of vehicles in HOV lane}} \times 100\%$

(4) HOV lane in operation from 3:00 to 7:00 P.M.

(5) Observations conducted 03/11/09 at the San Tomas Expressway I/C

# SANTA CLARA-101

Guadalupe Parkway to Ellis Street

## Northbound - A.M.

Typical data for 2009 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup> 6:00 - 9:00 AM		PEAK HOUR 8:00 - 9:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	65	19	38	8
Buses	16	14	5	6
Carpools <sup>(1)</sup>	1995	694	849	270
Vanpools	11	3	5	2
Hybrid/Single Occ. <sup>(2)</sup>	69	12689	43	4423
Violators	62	—	27	—
<b>TOTAL</b>	<b>2218</b>	<b>13419</b>	<b>967</b>	<b>4709</b>
PERSONS	HOV Lane		Mixed Flow Lanes	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	65	19	38	8
Buses	560	490	175	210
Carpools <sup>(1)</sup>	4100	1559	1748	601
Vanpools	110	30	50	20
Hybrid/Single Occ. <sup>(2)</sup>	69	12689	43	4423
Violators	62	—	27	—
<b>TOTAL</b>	<b>4966</b>	<b>14787</b>	<b>2081</b>	<b>5262</b>
RATES	HOV Lane		Mixed Flow Lanes	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.2 persons/veh		2.2 persons/veh	
Mixed Flow occupancy rate	1.1 persons/veh		1.1 persons/veh	
Overall occupancy (incl. buses)	1.3 persons/veh		1.3 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	2.8 %		2.8 %	

**NOTES:** (1) Two or more occupants per vehicle.

(2) Hybrid HOV lane only/Single Occupancy mixed flow lanes only

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane}}{\text{Total no. of vehicles in HOV lane}} \times 100\%$

(4) HOV lane in operation from 5:00 to 9:00 A.M.

(5) Observations conducted 04/02/09 at the Fair Oaks Avenue I/C

# SANTA CLARA-101

Ellis Street to Guadalupe Parkway

## Violation History

Southbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
<b>A.M. PEAK</b>	Year 2009	-	-	-
	Year 2008	-	-	-
	Year 2007	-	-	-
	Year 2006	-	-	-
	Year 2005	-	-	-
	Year 2004	-	-	-
	Year 2003	-	-	-
	Tue Dec 3, 2002	6:00 - 9:00 AM	668	2.2%
	Tue Jun 5, 2001	6:00 - 9:00 AM	765	2.1%
	Thu Apr 20, 2000	6:00 - 9:00 AM	916	3.8%
	Thur Oct 21, 1999	7:00 - 9:00 AM	739	1.8%
<b>P.M. PEAK</b>	Wed Mar 11, 2009	4:00 - 6:00 PM	2117	0.2%
	Thu Oct 9, 2008	3:00 - 6:00 PM	2779	0.2%
	Thu Nov 15, 2007	3:00 - 6:00 PM	3266	0.2%
	Tue Apr 18, 2006	3:00 - 6:00 PM	2779	0.3%
	Wed Apr 27, 2005	3:00 - 6:00 PM	2964	0.3%
	Tue Nov 16, 2004	3:00 - 5:30 PM	2190	0.4%
	Thu May 29, 2003	3:00 - 6:00 PM	3454	3.6%
	Thu Apr 11, 2002	3:00 - 6:00 PM	2912	1.2%
	Thu Mar 29, 2001	3:00 - 6:00 PM	3903	3.1%
	Wed Nov 15, 2000	3:00 - 5:30 PM	3077	2.7%
	Wed Oct 20, 1999	3:00 - 6:00 PM	3954	2.3%

**NOTES:** (a) Morning period of operation from 5:00 to 9:00 AM.

(b) Evening period of operation from 3:00 to 7:00 PM.

(c) Data was not collected in 2009 for off-peak direction

# SANTA CLARA-101

Guadalupe Parkway to Ellis Street

## Violation History

Northbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
<b>A.M. PEAK</b>	Thu Apr 2, 2009	6:00 - 9:00 AM	2218	2.8%
	Thu Dec 11, 2008	6:00 - 9:00 AM	1695	3.8%
	Thu Nov 15, 2007	6:00 - 9:00 AM	2371	0.9%
	Tue Nov 14, 2006	6:00 - 9:00 AM	1811	0.7%
	Wed Oct 26, 2005	7:00 - 9:00 AM	1221	0.4%
	Tue Nov 16, 2004	6:00 - 9:00 AM	1799	0.7%
	Wed May 7, 2003	6:00 - 9:00 AM	2142	0.6%
	Thu Apr 4, 2002	6:00 - 9:00 AM	1646	7.5%
	Wed Sep 26, 2001	6:00 - 9:00 AM	1607	0.8%
	Tue Apr 4, 2000	6:00 - 9:00 AM	1527	2.8%
	Wed Oct 20, 1999	7:00 - 9:00 AM	1299	0.5%
<b>P.M. PEAK</b>	Year 2009	-	-	-
	Year 2008	-	-	-
	Year 2007	-	-	-
	Year 2006	-	-	-
	Year 2005	-	-	-
	Year 2004	-	-	-
	Year 2003	-	-	-
	Wed May 22, 2002	3:00 - 6:00 PM	1487	3.8%
	Wed May 10, 2000	3:00 - 6:00 PM	1684	0.3%
	Tue Jun 8, 1999	3:00 - 6:00 PM	1765	2.2%

**NOTES:** (a) Morning period of operation from 5:00 to 9:00 AM.  
 (b) Evening period of operation from 3:00 to 7:00 PM.  
 (c) Data was not collected in 2009 for off-peak direction

# SANTA CLARA-101

Guadalupe Parkway to Route 280/680

# Southbound - P.M.

Typical data for 2009 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup> 3:00 - 6:00 PM		PEAK HOUR 4:00 - 5:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	74	44	31	19
Buses	6	17	3	3
Carpools <sup>(1)</sup>	2427	1207	817	355
Vanpools	6	2	1	0
Hybrid/Single Occ. <sup>(2)</sup>	117	13771	38	4771
Violators	29	—	7	—
<b>TOTAL</b>	<b>2659</b>	<b>15041</b>	<b>897</b>	<b>5148</b>

PERSONS	PEAK PERIOD <sup>(4)</sup> 3:00 - 6:00 PM		PEAK HOUR 4:00 - 5:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	74	44	31	19
Buses	210	595	105	105
Carpools <sup>(1)</sup>	5017	2582	1713	752
Vanpools	60	20	10	0
Hybrid/Single Occ. <sup>(2)</sup>	117	13771	38	4771
Violators	29	—	7	—
<b>TOTAL</b>	<b>5507</b>	<b>17012</b>	<b>1904</b>	<b>5647</b>

RATES	PEAK PERIOD <sup>(4)</sup> 3:00 - 6:00 PM		PEAK HOUR 4:00 - 5:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.1 persons/veh		2.1 persons/veh	
Mixed Flow occupancy rate	1.1 persons/veh		1.1 persons/veh	
Overall occupancy (incl. buses)	1.3 persons/veh		1.2 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	1.1 %		0.8 %	

- NOTES:** (1) Two or more occupants per vehicle.  
 (2) Hybrid HOV lane only/Single Occupancy mixed flow lanes only  
 (3) Violation rate =  $\frac{\text{no. of violators in HOV lane}}{\text{Total no. of vehicles in HOV lane}} \times 100\%$   
 (4) HOV lane in operation from 3:00 to 7:00 P.M.  
 (5) Observations conducted 03/18/09 at the McKee Road I/C



# SANTA CLARA-101

Route 280/680 to Guadalupe Parkway

## Northbound - A.M.

Typical data for 2009 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup> 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	78	8	32	2
Buses	5	7	2	1
Carpools <sup>(1)</sup>	2680	326	1119	138
Vanpools	6	1	4	0
Hybrid/Single Occ. <sup>(2)</sup>	170	17485	69	6232
Violators	8	—	4	—
<b>TOTAL</b>	<b>2947</b>	<b>17827</b>	<b>1230</b>	<b>6373</b>

PERSONS	PEAK PERIOD <sup>(4)</sup> 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	78	8	32	2
Buses	175	245	70	35
Carpools <sup>(1)</sup>	5428	699	2277	296
Vanpools	60	10	40	0
Hybrid/Single Occ. <sup>(2)</sup>	170	17485	69	6232
Violators	8	—	4	—
<b>TOTAL</b>	<b>5919</b>	<b>18447</b>	<b>2492</b>	<b>6565</b>

RATES	PEAK PERIOD <sup>(4)</sup> 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.0 persons/veh		2.0 persons/veh	
Mixed Flow occupancy rate	1.0 persons/veh		1.0 persons/veh	
Overall occupancy (incl. buses)	1.2 persons/veh		1.2 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	0.3 %		0.3 %	

**NOTES:** (1) Two or more occupants per vehicle.

(2) Hybrid HOV lane only/Single Occupancy mixed flow lanes only

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane}}{\text{Total no. of vehicles in HOV lane}} \times 100\%$

(4) HOV lane in operation from 5:00 to 9:00 A.M.

(5) Observations conducted 10/22/09 at the McKee Road I/C

# SANTA CLARA-101

Guadalupe Parkway to Route 280/680 I/C

## Violation History

Southbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
<b>A.M. PEAK</b>	Year 2009	-	-	-
	Year 2008	-	-	-
	Year 2007	-	-	-
	Year 2006	-	-	-
	Year 2005	-	-	-
	Year 2004	-	-	-
	Year 2003	-	-	-
	Thu May 30, 2002	6:00 - 9:00 AM	339	3.5%
	Thu Oct 18, 2001	6:00 - 9:00 AM	495	3.0%
	Thu Jun 8, 2000	6:00 - 9:00 AM	485	11.8%
	Wed Mar 24, 1999	6:00 - 9:00 AM	378	9.5%
<b>P.M. PEAK</b>	Wed Mar 18, 2009	3:00 - 6:00 PM	2659	1.1%
	Thu Nov 6, 2008	3:00 - 6:00 PM	3464	1.7%
	Thu Dec 13, 2007	3:00 - 6:00 PM	3098	0.4%
	Tue May 9, 2006	3:00 - 6:00 PM	2216	0.1%
	Wed Sep 21, 2005	3:00 - 6:00 PM	2452	0.2%
	Tue Nov 9, 2004	3:00 - 5:30 PM	1947	0.7%
	Thu Apr 3, 2003	3:00 - 6:00 PM	1860	0.5%
	Thu Jun 13, 2002	3:00 - 6:00 PM	2342	1.3%
	Tue Mar 27, 2001	3:00 - 6:00 PM	2840	2.6%
	Thu May 11, 2000	3:00 - 6:00 PM	3049	1.7%
	Tue Dec 14, 1999	3:00 - 5:30 PM	2418	0.4%

**NOTES:** (a) Morning period of operation from 5:00 to 9:00 AM.  
(b) Evening period of operation from 3:00 to 7:00 PM.  
(c) Data was not collected in 2009 for off-peak direction

# SANTA CLARA-101

Route 280/680 I/C to Guadalupe Parkway

## Violation History

Northbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
<b>A.M. PEAK</b>	Thu Oct 22, 2009	6:00 - 9:00 AM	2947	<b>0.3%</b>
	Tue Oct 7, 2008	6:00 - 9:00 AM	3651	<b>0.4%</b>
	Tue Dec 11, 2007	6:00 - 9:00 AM	3914	<b>0.1%</b>
	Tue May 16, 2006	6:00 - 9:00 AM	3374	<b>3.8%</b>
	Wed Mar 30, 2005	6:00 - 9:00 AM	4026	<b>6.8%</b>
	Thu Dec 2, 2004	6:00 - 9:00 AM	3561	<b>0.2%</b>
	Thu Jun 12, 2003	6:00 - 9:00 AM	3794	<b>2.6%</b>
	Thu Apr 11, 2002	6:30 - 9:00 AM	3438	<b>2.7%</b>
	Thu May 11, 2000	6:00 - 9:00 AM	4839	<b>2.4%</b>
	Wed Apr 14, 1999	6:00 - 9:00 AM	4717	<b>2.9%</b>
<b>P.M. PEAK</b>	Year 2009	-	-	-
	Year 2008	-	-	-
	Year 2007	-	-	-
	Year 2006	-	-	-
	Year 2005	-	-	-
	Year 2004	-	-	-
	Year 2003	-	-	-
	Thu May 23, 2002	3:00 - 6:00 PM	1264	<b>1.6%</b>
	Thu Apr 27, 2000	3:00 - 6:00 PM	1318	<b>3.7%</b>
	Tue Dec 7, 1999	3:00 - 5:00 PM	1314	<b>4.3%</b>

**NOTES:** (a) Morning period of operation from 5:00 to 9:00 AM.  
 (b) Evening period of operation from 3:00 to 7:00 PM.  
 (c) Data was not collected in 2009 for off-peak direction

# SANTA CLARA-101

Route 280/680 to Bernal Road

## Southbound - P.M.

Typical data for 2009 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup> 3:00 - 6:00 PM		PEAK HOUR 3:00 - 4:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	57	19	20	6
Buses	8	4	4	4
Carpools <sup>(1)</sup>	1781	1335	591	506
Vanpools	7	7	3	4
Hybrid/Single Occ. <sup>(2)</sup>	79	12095	18	4006
Violators	21	—	16	—
<b>TOTAL</b>	1953	13460	652	4526
PERSONS	HOV Lane		Mixed Flow Lanes	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	57	19	20	6
Buses	280	140	140	140
Carpools <sup>(1)</sup>	3708	2809	1235	1075
Vanpools	70	70	30	40
Hybrid/Single Occ. <sup>(2)</sup>	79	12095	18	4006
Violators	21	—	16	—
<b>TOTAL</b>	4215	15133	1459	5267
RATES	HOV Lane		Mixed Flow Lanes	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.2 persons/veh		2.2 persons/veh	
Mixed Flow occupancy rate	1.1 persons/veh		1.2 persons/veh	
Overall occupancy (incl. buses)	1.3 persons/veh		1.3 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	1.1 %		2.5 %	

**NOTES:** (1) Two or more occupants per vehicle.

(2) Hybrid HOV Lane only/Single Occupancy mixed flow lanes only

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane}}{\text{Total no. of vehicles in HOV lane}} \times 100\%$

(4) HOV lane in operation from 3:00 to 7:00 P.M.

(5) Observations conducted 05/26/09 at the Hellyer Avenue I/C

# SANTA CLARA-101

Bernal Road to Route 280/680 I/C

## Northbound - A.M.

Typical data for 2009 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup>		PEAK HOUR	
	6:00 - 9:00 AM		7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	60	5	28	3
Buses	11	34	7	11
Carpools <sup>(1)</sup>	1395	560	647	252
Vanpools	2	12	0	2
Hybrid/Single Occ. <sup>(2)</sup>	134	11918	51	4585
Violators	8	—	1	—
<b>TOTAL</b>	<b>1610</b>	<b>12529</b>	<b>734</b>	<b>4853</b>
PERSONS	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
	60	5	28	3
	385	1190	245	385
Carpools <sup>(1)</sup>	2901	1208	1372	543
Vanpools	20	120	0	20
Hybrid/Single Occ. <sup>(2)</sup>	134	11918	51	4585
Violators	8	—	1	—
<b>TOTAL</b>	<b>3508</b>	<b>14441</b>	<b>1697</b>	<b>5536</b>
RATES	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
	2.2 persons/veh	1.2 persons/veh	2.3 persons/veh	1.1 persons/veh
	1.3 persons/veh	1.3 persons/veh	1.3 persons/veh	1.3 persons/veh
Violation rate <sup>(3)</sup> (HOV Lane)	0.5 %		0.1 %	

**NOTES:** (1) Two or more occupants per vehicle.

(2) Hybrid HOV Lane only/Single Occupancy mixed flow lanes only

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane}}{\text{Total no. of vehicles in HOV lane}} \times 100\%$

(4) HOV lane in operation from 5:00 to 9:00 A.M.

(5) Observations conducted 04/29/09 at the Hellyer Avenue I/C

# SANTA CLARA-101

Route 280/680 I/C to Bernal Road

## Violation History

Southbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
<b>A.M. PEAK</b>	Year 2009	-	-	-
	Year 2008	-	-	-
	Year 2007	-	-	-
	Year 2006	-	-	-
	Year 2005	-	-	-
	Year 2004	-	-	-
	Year 2003	-	-	-
	Thu Jun 6, 2002	6:00 - 9:00 AM	730	5.6%
	Thu Apr 19, 2001	6:00 - 9:00 AM	746	5.4%
	Wed Oct 4, 2000	7:00 - 9:00 AM	413	5.6%
	Wed Nov 3, 1999	6:00 - 9:00 AM	660	0.9%
<b>P.M. PEAK</b>	Tue May 26, 2009	3:00 - 6:00 PM	1953	1.1%
	Thu May 29, 2008	3:00 - 6:00 PM	2088	0.6%
	Tue May 8, 2007	3:00 - 6:00 PM	1881	1.2%
	Wed May 3, 2006	3:00 - 6:00 PM	2127	3.3%
	Thu Mar 10, 2005	3:00 - 6:00 PM	2225	0.6%
	Tue Nov 23, 2004	3:00 - 5:30 PM	1747	0.3%
	Thu May 1, 2003	3:00 - 6:00 PM	2204	1.6%
	Tue Mar 19, 2002	3:00 - 6:00 PM	1496	2.0%
	Wed May 16, 2001	3:00 - 6:00 PM	1732	0.8%
	Tue Sep 19, 2000	3:00 - 6:00 PM	1898	0.7%
	Tue Mar 16, 1999	3:00 - 6:30 PM	702	4.6%

**NOTES:** (a) Morning period of operation from 5:00 to 9:00 AM.  
(b) Evening period of operation from 3:00 to 7:00 PM.  
(c) Data was not collected in 2009 for off-peak direction

# SANTA CLARA-101

Bernal Road to Route 280/680 I/C

## Violation History

Northbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
<b>A.M. PEAK</b>	Wed Apr 29, 2009	6:00 - 9:00 AM	1610	<b>0.5%</b>
	Wed Oct 15, 2008	6:00 - 9:00 AM	1658	<b>0.4%</b>
	Tue Apr 10, 2007	6:00 - 9:00 AM	1575	<b>0.6%</b>
	Tue Apr 18, 2006	6:00 - 9:00 AM	2019	<b>2.2%</b>
	Tue Apr 19, 2005	6:00 - 9:00 AM	2366	<b>0.8%</b>
	Tue Dec 14, 2004	6:00 - 9:00 AM	1668	<b>1.3%</b>
	Tue Jun 3, 2003	6:00 - 9:00 AM	2620	<b>1.0%</b>
	Thu May 16, 2002	6:00 - 9:00 AM	1859	<b>2.7%</b>
	Tue Apr 3, 2001	6:00 - 9:00 AM	2258	<b>3.5%</b>
	Thu Nov 30, 2000	7:00 - 9:00 AM	1503	<b>2.3%</b>
	Tue Dec 7, 1999	6:30 - 9:00 AM	2550	<b>4.9%</b>
<b>P.M. PEAK</b>	Year 2009	-	-	-
	Year 2008	-	-	-
	Year 2007	-	-	-
	Year 2006	-	-	-
	Year 2005	-	-	-
	Year 2004	-	-	-
	Year 2003	-	-	-
	Wed Mar 27, 2002	3:00 - 6:00 PM	1156	<b>3.1%</b>
	Tue May 15, 2001	3:00 - 6:00 PM	1155	<b>5.4%</b>
	Wed Apr 5, 2000	3:00 - 6:00 PM	1169	<b>5.9%</b>
	Wed May 26, 1999	3:00 - 6:00 PM	1255	<b>5.1%</b>

**NOTES:** (a) Morning period of operation from 5:00 to 9:00 AM.  
(b) Evening period of operation from 3:00 to 7:00 PM.  
(c) Data was not collected in 2009 for off-peak direction

# SANTA CLARA-101

Bernal Road to Cochrane Road

## Southbound - P.M.

Typical data for 2009 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup>		PEAK HOUR	
	3:00 - 6:00 PM		4:00 - 5:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	45	34	7	10
Buses	10	5	2	1
Carpools <sup>(1)</sup>	2202	941	798	357
Vanpools	3	3	0	1
Hybrid/Single Occ. <sup>(2)</sup>	97	11977	33	4322
Violators	31	—	0	—
<b>TOTAL</b>	<b>2388</b>	<b>12960</b>	<b>840</b>	<b>4691</b>
PERSONS	HOV Lane		Mixed Flow Lanes	
	HOV Lane		Mixed Flow Lanes	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	45	34	7	10
Buses	350	175	70	35
Carpools <sup>(1)</sup>	4474	2064	1614	779
Vanpools	30	30	0	10
Hybrid/Single Occ. <sup>(2)</sup>	97	11977	33	4322
Violators	31	—	0	—
<b>TOTAL</b>	<b>5027</b>	<b>14280</b>	<b>1724</b>	<b>5156</b>
RATES	HOV Lane		Mixed Flow Lanes	
	HOV Lane		Mixed Flow Lanes	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.1	persons/veh	2.1	persons/veh
Mixed Flow occupancy rate	1.1	persons/veh	1.1	persons/veh
Overall occupancy (incl. buses)	1.3	persons/veh	1.2	persons/veh
Violation rate <sup>(3)</sup> (HOV Lane)	1.3	%	0.0	%

- NOTES:** (1) Two or more occupants per vehicle.  
(2) Hybrid HOV Lane only/Single Occupancy mixed flow lanes only  
(3) Violation rate =  $\frac{\text{no. of violators in HOV lane}}{\text{Total no. of vehicles in HOV lane}} \times 100\%$   
(4) HOV lane in operation from 3:00 to 7:00 P.M.  
(5) Observations conducted 06/11/09 at Coyote Creek Golf Drive I/C



# SANTA CLARA-101

Cochrane Road to Bernal Road

## Northbound - A.M.

Typical data for 2009 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup>		PEAK HOUR	
	6:00 - 9:00 AM		7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	11	22	7	10
Buses	13	2	4	0
Carpools <sup>(1)</sup>	1888	580	855	257
Vanpools	2	5	0	4
Hybrid/Single Occ. <sup>(2)</sup>	130	12546	73	4649
Violators	14	—	4	—
<b>TOTAL</b>	<b>2058</b>	<b>13155</b>	<b>943</b>	<b>4920</b>
PERSONS	HOV Lane		Mixed Flow Lanes	
	HOV Lane		Mixed Flow Lanes	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	11	22	7	10
Buses	455	70	140	0
Carpools <sup>(1)</sup>	3903	1268	1790	562
Vanpools	20	50	0	40
Hybrid/Single Occ. <sup>(2)</sup>	130	12546	73	4649
Violators	14	—	4	—
<b>TOTAL</b>	<b>4533</b>	<b>13956</b>	<b>2014</b>	<b>5261</b>
RATES	HOV Lane		Mixed Flow Lanes	
	HOV Lane		Mixed Flow Lanes	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.2 persons/veh		2.1 persons/veh	
Mixed Flow occupancy rate	1.1 persons/veh		1.1 persons/veh	
Overall occupancy (incl. buses)	1.2 persons/veh		1.2 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	0.7 %		0.4 %	

**NOTES:** (1) Two or more occupants per vehicle.

(2) Hybrid HOV Lane only/Single Occupancy mixed flow lanes only

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane}}{\text{Total no. of vehicles in HOV lane}} \times 100\%$

(4) HOV lane in operation from 5:00 to 9:00 A.M.

(5) Observations conducted 12/10/09 at Coyote Creek Golf Drive I/C

# SANTA CLARA-101

Bernal Road to Cochrane Road

## Violation History

Southbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
<b>A.M. PEAK</b>	Year 2009	-	-	-
	Year 2008	-	-	-
	Year 2007	-	-	-
	Year 2006	-	-	-
	Year 2005	-	-	-
	Year 2004	-	-	-
	Year 2003	-	-	-

<b>P.M. PEAK</b>	Thu Jun 11, 2009	3:00 - 6:00 PM	2388	<b>1.3%</b>
	Wed Oct 29, 2008	3:00 - 6:00 PM	2357	<b>0.4%</b>
	Tue May 15, 2007	3:00 - 6:00 PM	2177	<b>0.4%</b>
	Wed Apr 19, 2006	3:00 - 6:00 PM	1652	<b>1.2%</b>
	Tue Sep 13, 2005	3:00 - 6:00 PM	2102	<b>0.1%</b>
	Wed Nov 3, 2004	3:00 - 5:30 PM	1493	<b>1.5%</b>
	Wed May 21, 2003	3:00 - 6:00 PM	1775	<b>1.1%</b>

**NOTES:** (a) Morning period of operation from 5:00 to 9:00 AM.  
(b) Evening period of operation from 3:00 to 7:00 PM.  
(c) Data was not collected in 2009 for off-peak period

# SANTA CLARA-101

Cochrane Road to Bernal Road

## Violation History

Northbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
<b>A.M. PEAK</b>	Thu Dec 10, 2009	6:00 - 9:00 AM	2058	<b>0.7%</b>
	Wed Jun 4, 2008	6:00 - 9:00 AM	2394	<b>1.0%</b>
	Thu Dec 6, 2007	6:00 - 9:00 AM	2099	<b>0.3%</b>
	Tue Dec 19, 2006	6:00 - 9:00 AM	2799	<b>1.0%</b>
	Wed Dec 14, 2005	6:00 - 9:00 AM	1827	<b>1.4%</b>
	Tue Nov 9, 2004	6:00 - 9:00 AM	2120	<b>0.2%</b>
	Tue Oct 28, 2003	6:00 - 9:00 AM	1720	<b>0.0%</b>
<b>P.M. PEAK</b>	Year 2009	-	-	-
	Year 2008	-	-	-
	Year 2007	-	-	-
	Year 2006	-	-	-
	Year 2005	-	-	-
	Year 2004	-	-	-
	Year 2003	-	-	-

**NOTES:** (a) Morning period of operation from 5:00 to 9:00 AM.  
(b) Evening period of operation from 3:00 to 7:00 PM.  
(c) Data was not collected in 2009 for off-peak direction

# SANTA CLARA-237

Route 880/237 I/C to Mathilda Avenue

## Westbound - A.M.

Typical data for 2009 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup> 6:00 - 9:00 AM		PEAK HOUR 8:00 - 9:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	54	12	9	3
Buses	20	10	10	0
Carpools <sup>(1)</sup>	2079	126	791	60
Vanpools	6	6	4	1
Hybrid/Single Occ. <sup>(2)</sup>	156	11078	80	3964
Violators	68	—	42	—
<b>TOTAL</b>	<b>2383</b>	<b>11232</b>	<b>936</b>	<b>4028</b>

PERSONS	PEAK PERIOD <sup>(4)</sup> 6:00 - 9:00 AM		PEAK HOUR 8:00 - 9:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	54	12	9	3
Buses	700	350	350	0
Carpools <sup>(1)</sup>	4402	258	1710	123
Vanpools	60	60	40	10
Hybrid/Single Occ. <sup>(2)</sup>	156	11078	80	3964
Violators	68	—	42	—
<b>TOTAL</b>	<b>5440</b>	<b>11758</b>	<b>2231</b>	<b>4100</b>

RATES	PEAK PERIOD <sup>(4)</sup> 6:00 - 9:00 AM		PEAK HOUR 8:00 - 9:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.3 persons/veh		2.4 persons/veh	
Mixed Flow occupancy rate	1.0 persons/veh		1.0 persons/veh	
Overall occupancy (incl. buses)	1.3 persons/veh		1.3 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	2.9 %		4.5 %	

- NOTES:** (1) Two or more occupants per vehicle.  
 (2) Hybrid HOV Lane only/ Single Occupancy mixed flow lanes only.  
 (3) Violation rate =  $\frac{\text{no. of violators in HOV lane}}{\text{Total no. of vehicles in HOV lane}} \times 100\%$   
 (4) HOV lane in operation from 5:00 to 9:00 P.M.  
 (5) Observations conducted 09/22/09 at the Zanker Road I/C

# SANTA CLARA-237

Route 880/237 I/C to Mathilda Avenue

## Westbound - P.M.

Typical data for 2009 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup> 3:00 - 6:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	43	19	18	5
Buses	4	17	1	1
Carpools <sup>(1)</sup>	947	617	441	144
Vanpools	0	2	0	0
Hybrid/Single Occ. <sup>(2)</sup>	92	9289	56	3442
Violators	13	—	2	—
<b>TOTAL</b>	1099	9944	518	3592

PERSONS	PEAK PERIOD <sup>(4)</sup> 3:00 - 6:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	43	19	18	5
Buses	140	595	35	35
Carpools <sup>(1)</sup>	1972	1363	919	322
Vanpools	0	20	0	0
Hybrid/Single Occ. <sup>(2)</sup>	92	9289	56	3442
Violators	13	—	2	—
<b>TOTAL</b>	2260	11286	1030	3804

RATES	PEAK PERIOD <sup>(4)</sup> 3:00 - 6:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.1 persons/veh		2.0 persons/veh	
Mixed Flow occupancy rate	1.1 persons/veh		1.1 persons/veh	
Overall occupancy (incl. buses)	1.2 persons/veh		1.2 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	1.2 %		0.4 %	

- NOTES:** (1) Two or more occupants per vehicle.  
 (2) Hybrid HOV Lane only/Single Occupancy mixed flow lanes only.  
 (3) Violation rate =  $\frac{\text{no. of violators in HOV lane}}{\text{Total no. of vehicles in HOV lane}} \times 100\%$   
 (4) HOV lane in operation from 3:00 to 7:00 P.M.  
 (5) Observations conducted 10/01/09 at the Zanker Road I/C

# SANTA CLARA-237

Mathilda Avenue to Route 880/237

## Eastbound - P.M.

Typical data for 2009 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup> 3:00 - 6:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	71	22	38	11
Buses	27	5	7	2
Carpools <sup>(1)</sup>	1543	131	571	44
Vanpools	4	15	2	4
Hybrid/Single Occ. <sup>(2)</sup>	106	10741	50	3881
Violators	24	—	1	—
<b>TOTAL</b>	<b>1775</b>	<b>10914</b>	<b>669</b>	<b>3942</b>

PERSONS	PEAK PERIOD <sup>(4)</sup> 3:00 - 6:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	71	22	38	11
Buses	945	175	245	70
Carpools <sup>(1)</sup>	3180	282	1177	97
Vanpools	40	150	20	40
Hybrid/Single Occ. <sup>(2)</sup>	106	10741	50	3881
Violators	24	—	1	—
<b>TOTAL</b>	<b>4366</b>	<b>11370</b>	<b>1531</b>	<b>4099</b>

RATES	PEAK PERIOD <sup>(4)</sup> 3:00 - 6:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.5 persons/veh		2.3 persons/veh	
Mixed Flow occupancy rate	1.0 persons/veh		1.0 persons/veh	
Overall occupancy (incl. buses)	1.2 persons/veh		1.2 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	1.4 %		0.1 %	

- NOTES:** (1) Two or more occupants per vehicle.  
 (2) Hybrid HOV Lane only/Single Occupancy mixed flow lanes only.  
 (3) Violation rate =  $\frac{\text{no. of violators in HOV lane}}{\text{Total no. of vehicles in HOV lane}} \times 100\%$   
 (4) HOV lane in operation from 3:00 to 7:00 P.M.  
 (5) Observations conducted 06/03/09 at the Zanker Road I/C

# SANTA CLARA-237

Route 880/237 I/C to Mathilda Avenue

## Violation History

Westbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
<b>A.M. PEAK</b>	Tue Sep 22, 2009	6:00 - 9:00 AM	2383	2.9%
	Wed Dec 17, 2008	6:00 - 9:00 AM	2046	0.6%
	Tue Sep 18, 2007	6:00 - 9:00 AM	2092	0.1%
	Wed Apr 26, 2006	6:00 - 9:00 AM	1631	0.3%
	Wed Nov 2, 2005	6:00 - 9:00 AM	1666	3.1%
	Thu Nov 18, 2004	6:00 - 9:00 AM	1407	0.9%
	Thu May 29, 2003	6:00 - 9:00 AM	1644	0.0%
	Thu May 2, 2002	6:00 - 9:00 AM	1577	3.7%
	Thu May 3, 2001	6:00 - 9:00 AM	1916	5.3%
	Wed Nov 15, 2000	6:00 - 9:00 AM	2055	2.7%
	Tue Nov 9, 1999	6:30 - 9:00 AM	1917	1.9%
<b>P.M. PEAK</b>	Thu Oct 1, 2009	3:00 - 6:00 PM	1099	1.2%
	Wed May 28, 2008	3:00 - 6:00 PM	1072	0.6%
	Tue Jun 12, 2007	3:00 - 6:00 PM	1641	8.2%
	Tue Mar 28, 2006	3:00 - 6:00 PM	1008	4.3%
	Tue Oct 25, 2005	3:00 - 6:00 PM	908	2.1%
	Thu Dec 9, 2004	3:00 - 5:15 PM	493	10.8%
	Thu Oct 9, 2003	3:00 - 6:00 PM	698	5.6%
	Wed May 15, 2002	3:00 - 6:00 PM	773	2.2%
	Wed May 30, 2001	3:00 - 6:00 PM	1102	3.1%
	Wed Sep 13, 2000	3:00 - 6:00 PM	1155	2.5%
	Wed Mar 3, 1999	3:00 - 7:00 PM	1260	0.6%

**NOTES:** (a) Morning period of operation from 5:00 to 9:00 AM.  
(b) Evening period of operation from 3:00 to 7:00 PM.

# SANTA CLARA-237

Mathilda Avenue to Route 880/237 I/C

## Violation History

Eastbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
<b>A.M. PEAK</b>	Year 2009	-	-	-
	Year 2008	-	-	-
	Thu Nov 29, 2007	6:00 - 9:00 AM	741	<b>0.4%</b>
	Tue May 9, 2006	6:00 - 9:00 AM	710	<b>11.1%</b>
	Year 2005	-	-	-
	Year 2004	-	-	-
	Year 2003	-	-	-
	Thu Oct 31, 2002	7:00 - 9:00 AM	561	<b>12.1%</b>
	Thu Mar 29, 2001	6:00 - 9:00 AM	759	<b>15.0%</b>
	Thu May 25, 2000	6:00 - 9:00 AM	536	<b>5.8%</b>
	Thu Oct 14, 1999	6:00 - 9:00 AM	769	<b>11.4%</b>
<b>P.M. PEAK</b>	Wed Jun 3, 2009	3:00 - 6:00 PM	1775	<b>1.4%</b>
	Wed Apr 2, 2008	3:00 - 6:00 PM	1670	<b>1.0%</b>
	Wed May 23, 2007	3:00 - 6:00 PM	2433	<b>0.1%</b>
	Thu May 11, 2006	3:00 - 6:00 PM	1671	<b>4.2%</b>
	Thu Oct 6, 2005	3:00 - 6:00 PM	1746	<b>13.3%</b>
	Wed Dec 1, 2004	3:00 - 5:00 PM	1324	<b>0.8%</b>
	Tue Oct 14, 2003	3:00 - 6:00 PM	1296	<b>0.9%</b>
	Wed May 1, 2002	3:00 - 6:00 PM	1396	<b>1.9%</b>
	Thu May 3, 2001	3:00 - 6:00 PM	1255	<b>2.1%</b>
	Tue Mar 21, 2000	4:00 - 7:00 PM	2181	<b>0.4%</b>
	Thu Nov 18, 1999	3:00 - 6:00 PM	2535	<b>3.0%</b>

**NOTES:** (a) Morning period of operation from 5:00 to 9:00 AM.  
(b) Evening period of operation from 3:00 to 7:00 PM.  
(c) Data was not collected in 2009 for off-peak direction



# SANTA CLARA-280

Magdalena Avenue to Leland Avenue

## Southbound - P.M.

Typical data for 2009 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup> 3:00 - 6:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	48	25	24	14
Buses	19	25	15	5
Carpools <sup>(1)</sup>	2127	1016	914	159
Vanpools	2	8	1	2
Hybrid/Single Occ. <sup>(2)</sup>	102	13262	49	4601
Violators	11	—	0	—
<b>TOTAL</b>	<b>2309</b>	<b>14336</b>	<b>1003</b>	<b>4781</b>
PERSONS	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	48	25	24	14
Buses	665	875	525	175
Carpools <sup>(1)</sup>	4345	2184	1836	364
Vanpools	20	80	10	20
Hybrid/Single Occ. <sup>(2)</sup>	102	13262	49	4601
Violators	11	—	0	—
<b>TOTAL</b>	<b>5191</b>	<b>16426</b>	<b>2444</b>	<b>5174</b>
RATES				
HOV Lane occupancy rate	2.2 persons/veh		2.4 persons/veh	
Mixed Flow occupancy rate	1.1 persons/veh		1.1 persons/veh	
Overall occupancy (incl. buses)	1.3 persons/veh		1.3 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	0.5 %		0.0 %	

**NOTES:** (1) Two or more occupants per vehicle.

(2) Hybrid HOV Lane only/Single Occupancy mixed flow lanes only.

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane}}{\text{Total no. of vehicles in HOV lane}} \times 100\%$

(4) HOV lane in operation from 3:00 to 7:00 P.M.

(5) Observations conducted 11/12/09 at the Wolfe Road I/C

# SANTA CLARA-280

Leland Avenue to Magdalena Avenue

## Northbound - A.M.

Typical data for 2009 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup> 6:00 - 9:00 AM		PEAK HOUR 8:00 - 9:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	43	9	17	4
Buses	8	40	1	5
Carpools <sup>(1)</sup>	1411	371	581	171
Vanpools	4	8	1	2
Hybrid/Single Occ. <sup>(2)</sup>	85	13108	48	5196
Violators	8	—	3	—
<b>TOTAL</b>	<b>1559</b>	<b>13536</b>	<b>651</b>	<b>5378</b>

PERSONS	PEAK PERIOD <sup>(4)</sup> 6:00 - 9:00 AM		PEAK HOUR 8:00 - 9:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	43	9	17	4
Buses	280	1400	35	175
Carpools <sup>(1)</sup>	2885	789	1187	362
Vanpools	40	80	10	20
Hybrid/Single Occ. <sup>(2)</sup>	85	13108	48	5196
Violators	8	—	3	—
<b>TOTAL</b>	<b>3341</b>	<b>15386</b>	<b>1300</b>	<b>5757</b>

RATES	PEAK PERIOD <sup>(4)</sup> 6:00 - 9:00 AM		PEAK HOUR 8:00 - 9:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.1 persons/veh		2.0 persons/veh	
Mixed Flow occupancy rate	1.1 persons/veh		1.1 persons/veh	
Overall occupancy (incl. buses)	1.2 persons/veh		1.2 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	0.5 %		0.5 %	

**NOTES:** (1) Two or more occupants per vehicle.

(2) Hybrid HOV Lane only/Single Occupancy mixed flow lanes only.

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane}}{\text{Total no. of vehicles in HOV lane}} \times 100\%$

(4) HOV lane in operation from 5:00 to 9:00 A.M.

(5) Observations conducted 04/23/09 at the Wolfe Road I/C

# SANTA CLARA-280

Magdalena Avenue to Leland Avenue

## Violation History

Southbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
<b>A.M. PEAK</b>	Year 2009	-	-	-
	Year 2008	-	-	-
	Year 2007	-	-	-
	Year 2006	-	-	-
	Year 2005	-	-	-
	Year 2004	-	-	-
	Year 2003	-	-	-
	Thu Apr 18, 2002	6:30 - 9:00 AM	372	4.6%
	Thu Apr 5, 2001	6:00 - 9:00 AM	524	2.7%
	Thu Apr 13, 2000	6:00 - 9:00 AM	474	9.3%
	Tue Apr 20, 1999	6:00 - 9:00 AM	608	0.3%
<b>P.M. PEAK</b>	Thu Nov 12, 2009	3:00 - 6:00 PM	2309	0.5%
	Thu Dec 4, 2008	3:00 - 6:00 PM	2606	2.0%
	Tue Apr 10, 2007	3:00 - 6:00 PM	2404	0.0%
	Thu Apr 27, 2006	3:00 - 6:00 PM	1569	3.5%
	Tue Dec 13, 2005	3:00 - 6:00 PM	2469	0.0%
	Tue Nov 2, 2004	3:00 - 5:30 PM	1817	2.3%
	Thu Jun 12, 2003	3:00 - 5:30 PM	1756	1.0%
	Thu Sep 19, 2002	3:00 - 6:00 PM	1933	0.6%
	Thu Oct 11, 2001	3:00 - 6:00 PM	2221	1.0%
	Wed Oct 11, 2000	3:00 - 6:00 PM	2325	5.0%
	Wed Apr 21, 1999	3:00 - 6:00 PM	2058	4.9%

**NOTES:** (a) Morning period of operation from 5:00 to 9:00 AM.  
(b) Evening period of operation from 3:00 to 7:00 PM.  
(c) Data was not collected in 2009 for off-peak direction

# SANTA CLARA-280

Leland Avenue to Magdalena Avenue

## Violation History

Northbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
<b>A.M. PEAK</b>	Thu Apr 23, 2009	6:00 - 9:00 AM	1559	<b>0.5%</b>
	Thu May 29, 2008	6:00 - 9:00 AM	1772	<b>0.9%</b>
	Thu Dec 5, 2007	6:00 - 9:00 AM	2105	<b>0.7%</b>
	Thu Dec 14, 2006	6:00 - 9:00 AM	1843	<b>0.1%</b>
	Tue Mar 8, 2005	6:00 - 9:00 AM	1602	<b>0.8%</b>
	Thu Oct 7, 2004	6:00 - 9:00 AM	2213	<b>2.4%</b>
	Thu Jun 5, 2003	6:00 - 9:00 AM	1558	<b>7.4%</b>
	Tue May 21, 2002	6:00 - 9:00 AM	1355	<b>5.4%</b>
	Tue Nov 6, 2001	6:00 - 9:00 AM	1253	<b>1.6%</b>
	Wed Mar 29, 2000	6:00 - 9:00 AM	2086	<b>1.7%</b>
	Thu Nov 4, 1999	6:30 - 9:00 AM	1884	<b>0.3%</b>

<b>P.M. PEAK</b>	Year 2009	-	-	-
	Year 2008	-	-	-
	Year 2007	-	-	-
	Year 2006	-	-	-
	Year 2005	-	-	-
	Year 2004	-	-	-
	Year 2003	-	-	-
	Tue May 28, 2002	3:00 - 6:00 PM	1081	<b>1.5%</b>
	Wed Apr 4, 2001	3:00 - 6:00 PM	1160	<b>0.9%</b>
	Thu Apr 13, 2000	3:00 - 6:00 PM	1106	<b>5.4%</b>
	Tue Apr 20, 1999	3:00 - 6:00 PM	938	<b>0.2%</b>

**NOTES:** (a) Morning period of operation from 5:00 to 9:00 AM.  
(b) Evening period of operation from 3:00 to 7:00 PM.  
(c) Data was not collected in 2009 for off-peak direction

# SANTA CLARA-680

Alameda County Line to Rte 237 Calaveras Blvd

## Southbound - A.M.

Typical data for 2009 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup> 6:00 - 9:00 AM		PEAK HOUR 8:00 - 9:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	37	27	8	14
Buses	6	6	3	3
Carpools <sup>(1)</sup>	986	749	406	246
Vanpools	3	2	1	2
Hybrid/Single Occ. <sup>(2)</sup>	122	11216	61	4598
Violators	49	—	22	—
<b>TOTAL</b>	<b>1203</b>	<b>12000</b>	<b>501</b>	<b>4863</b>

PERSONS	PEAK PERIOD <sup>(4)</sup> 6:00 - 9:00 AM		PEAK HOUR 8:00 - 9:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	37	27	8	14
Buses	210	210	105	105
Carpools <sup>(1)</sup>	2110	1654	880	549
Vanpools	30	20	10	20
Hybrid/Single Occ. <sup>(2)</sup>	122	11216	61	4598
Violators	49	—	22	—
<b>TOTAL</b>	<b>2558</b>	<b>13127</b>	<b>1086</b>	<b>5286</b>

RATES	PEAK PERIOD <sup>(4)</sup> 6:00 - 9:00 AM		PEAK HOUR 8:00 - 9:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.1 persons/veh		2.2 persons/veh	
Mixed Flow occupancy rate	1.1 persons/veh		1.1 persons/veh	
Overall occupancy (incl. buses)	1.2 persons/veh		1.2 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	4.1 %		4.4 %	

- NOTES:** (1) Two or more occupants per vehicle.  
(2) Hybrid HOV lane only/Single occ. mixed flow lanes only.  
(3) Violation rate =  $\frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$   
(4) HOV lane in operation from 5:00 to 9:00 A.M.  
(5) Observations conducted 05/21/09 at Jackson Street I/C

# SANTA CLARA-680

Alameda County Line to Rte 237 Calaveras Blvd

# Southbound - P.M.

Typical data for 2009 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup> 3:00 - 6:00 PM		PEAK HOUR 4:00 - 5:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	26	29	10	11
Buses	2	22	0	10
Carpools <sup>(1)</sup>	757	1140	284	487
Vanpools	4	9	2	6
Hybrid/Single Occ. <sup>(2)</sup>	18	9853	6	3427
Violators	8	—	1	—
<b>TOTAL</b>	<b>815</b>	<b>11053</b>	<b>303</b>	<b>3941</b>

PERSONS	PEAK PERIOD <sup>(4)</sup> 3:00 - 6:00 PM		PEAK HOUR 4:00 - 5:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	26	29	10	11
Buses	70	770	0	350
Carpools <sup>(1)</sup>	1555	2449	585	1035
Vanpools	40	90	20	60
Hybrid/Single Occ. <sup>(2)</sup>	18	9853	6	3427
Violators	8	—	1	—
<b>TOTAL</b>	<b>1717</b>	<b>13191</b>	<b>622</b>	<b>4883</b>

RATES	PEAK PERIOD <sup>(4)</sup> 3:00 - 6:00 PM		PEAK HOUR 4:00 - 5:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.1 persons/veh		2.1 persons/veh	
Mixed Flow occupancy rate	1.2 persons/veh		1.2 persons/veh	
Overall occupancy (incl. buses)	1.3 persons/veh		1.3 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	1.0 %		0.3 %	

- NOTES:** (1) Two or more occupants per vehicle.  
 (2) Hybrid HOV lane only/Single Occ. mixed flow lanes  
 (3) Violation rate =  $\frac{\text{no. of violators in HOV lane}}{\text{Total no. of vehicles in HOV lane}} \times 100\%$   
 (4) HOV lane in operation from 3:00 to 7:00 P.M.  
 (5) Observations conducted 04/23/09 at Jackson Street I/C

# SANTA CLARA-680

Alameda Co. Line to Route 237 Calaveras Blvd

## Violation History

Southbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
<b>A.M. PEAK</b>	Thu May 21, 2009	6:00-9:00 A.M	1203	<b>4.1%</b>
<b>P.M. PEAK</b>	Thu Apr 23, 2009	3:00-6:00 P.M	815	<b>1.0%</b>

**NOTES:** (a) Morning period of operation from 5:00 to 9:00 AM.  
(b) Evening period of operation from 3:00 to 7:00 PM.

# SAN FRANCISCO-80

## HOV RAMP

Sterling Street on-ramp to SFOBB

# Eastbound-P.M.

Typical data for 2009 <sup>(5)</sup>

## PEAK PERIOD <sup>(4)</sup>

3:30 - 7:00 PM

## PEAK HOUR

5:00 - 6:00 PM

### VEHICLES

	HOV Lane	SOV Lane	HOV Lane	SOV Lane
Motorcycles	87	—	31	—
Buses	13	—	0	—
Carpool <sup>(1)</sup>	1410	—	493	—
2 - seaters <sup>(2)</sup>	465	—	147	—
Hybrid	300	—	110	—
Vanpools	71	—	15	—
Trucks	29	—	11	—
Violators	733	—	196	—
<b>TOTAL</b>	<b>3108</b>	<b>N/A</b>	<b>1003</b>	<b>N/A</b>

### PERSONS

	HOV Lane	SOV Lane	HOV Lane	SOV Lane
Motorcycles	87	—	31	—
Buses	455	—	0	—
Carpool <sup>(1)</sup>	4371	—	1528	—
2 - seaters <sup>(2)</sup>	930	—	294	—
Hybrid	300	—	110	—
Vanpools	710	—	150	—
Trucks	29	—	11	—
Violators	1089	—	305	—
<b>TOTAL</b>	<b>7971</b>	<b>N/A</b>	<b>2429</b>	<b>N/A</b>

### RATES

HOV Lane occupancy rate	2.6 persons/veh	2.4 persons/veh
Violation rate <sup>(3)</sup> (HOV Lane)	23.6 %	19.5 %

- NOTES:** (1) 3 or more persons per vehicle.  
 (2) 2 - seater vehicles with 2 persons.  
 (3)  $\text{Violation rate} = \frac{\text{no. of violators in HOV lane}}{\text{Total no. of vehicles in HOV lane}} \times 100\%$   
 (4) HOV lane in operation from 3:30 to 7:00 PM.  
 (5) Observations conducted 3/17/09 at the Sterling Street on-ramp



# SAN FRANCISCO-80

## HOV RAMP

Sterling Street On-Ramp to SFOBB

# Violation History

## Eastbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
<b>P.M. PEAK</b>	Tue Mar 17, 2009	3:30 - 7:00 PM	3108	<b>23.6%</b>
	Wed Oct 1, 2008	3:30 - 7:00 PM	3161	<b>23.5%</b>
	Thu Sep 20, 2007	3:30 - 7:00 PM	3223	<b>10.6%</b>
	Tue Sep 12, 2006	3:30 - 7:00 PM	3411	<b>23.0%</b>
	Tue Mar 8, 2005	3:30 - 7:00 PM	3391	<b>24.4%</b>
	Tue Oct 12, 2004	3:30 - 7:00 PM	3161	<b>20.2%</b>
	Wed Apr 30, 2003	3:30 - 7:00 PM	2185	<b>22.6%</b>
	Tue Sep 17, 2002	3:30 - 7:00 PM	2713	<b>15.1%</b>
	Wed Oct 10, 2001	3:30 - 7:00 PM	3133	<b>10.4%</b>
	Thu Oct 19, 2000	3:30 - 7:00 PM	3327	<b>6.5%</b>
	Thu Oct 14, 1999	3:30 - 7:00 PM	3566	<b>27.5%</b>

**NOTES:** *Evening period of operation from 3:30 to 7:00 P.M.*

# SAN MATEO-101

Whipple Avenue to SM/SCL County Line

# Southbound - A.M.

Typical data for 2009 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup> 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	62	39	19	15
Buses	36	48	11	19
Carpools <sup>(1)</sup>	1202	634	515	199
Vanpools	7	2	0	2
Hybrid/Single Occ. <sup>(2)</sup>	227	13864	66	5355
Violators	13	—	2	—
<b>TOTAL</b>	<b>1547</b>	<b>14587</b>	<b>613</b>	<b>5590</b>

PERSONS	PEAK PERIOD <sup>(4)</sup> 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	62	39	19	15
Buses	1260	1680	385	665
Carpools <sup>(1)</sup>	2499	1441	1074	454
Vanpools	70	20	0	20
Hybrid/Single Occ. <sup>(2)</sup>	227	13864	66	5355
Violators	13	—	2	—
<b>TOTAL</b>	<b>4131</b>	<b>17044</b>	<b>1546</b>	<b>6509</b>

RATES	PEAK PERIOD <sup>(4)</sup> 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.7 persons/veh		2.5 persons/veh	
Mixed Flow occupancy rate	1.2 persons/veh		1.2 persons/veh	
Overall occupancy (incl. buses)	1.3 persons/veh		1.3 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	0.8 %		0.3 %	

- NOTES:** (1) Two or more occupants per vehicle.  
 (2) Hybrid HOV Lane only/Single occupancy mixed flow lanes only.  
 (3) Violation rate =  $\frac{\text{no. of violators in HOV lane}}{\text{Total no. of vehicles in HOV lane}} \times 100\%$   
 (4) HOV lane in operation from 5:00 to 9:00 A.M.  
 (5) Observations conducted 05/14/09 at the Woodside Road I/C

# SAN MATEO-101

Whipple Avenue to SM/SCL County Line

## Southbound - P.M.

Typical data for 2009 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup>		PEAK HOUR	
	3:00 - 6:00 PM		5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	63	78	33	25
Buses	9	27	5	3
Carpools <sup>(1)</sup>	1744	1203	722	317
Vanpools	27	4	7	2
Hybrid/Single Occ. <sup>(2)</sup>	150	14593	89	5200
Violators	184	—	41	—
<b>TOTAL</b>	<b>2177</b>	<b>15905</b>	<b>897</b>	<b>5547</b>
PERSONS	HOV Lane		Mixed Flow Lanes	
	HOV Lane		Mixed Flow Lanes	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	63	78	33	25
Buses	315	945	175	105
Carpools <sup>(1)</sup>	3572	2679	1477	712
Vanpools	270	40	70	20
Hybrid/Single Occ. <sup>(2)</sup>	150	14593	89	5200
Violators	184	—	41	—
<b>TOTAL</b>	<b>4554</b>	<b>18335</b>	<b>1885</b>	<b>6062</b>
RATES	HOV Lane		Mixed Flow Lanes	
	HOV Lane		Mixed Flow Lanes	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.1 persons/veh		2.1 persons/veh	
Mixed Flow occupancy rate	1.2 persons/veh		1.1 persons/veh	
Overall occupancy (incl. buses)	1.3 persons/veh		1.2 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	8.5 %		4.6 %	

**NOTES:** (1) Two or more occupants per vehicle.

(2) Hybrid HOV Lane only/Single occupancy mixed flow lanes only.

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane}}{\text{Total no. of vehicles in HOV lane}} \times 100\%$

(4) HOV lane in operation from 3:00 to 7:00 P.M.

(5) Observations conducted 10/22/09 at the Woodside Road I/C

# SAN MATEO-101

SM/SCL County Line to Whipple Avenue

## Northbound - A.M.

Typical data for 2009 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup>		PEAK HOUR	
	6:00 - 9:00 AM		8:00 - 9:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	44	4	15	3
Buses	4	9	2	4
Carpools <sup>(1)</sup>	2756	342	1018	141
Vanpools	13	0	6	0
Hybrid/Single Occ. <sup>(2)</sup>	192	9753	78	3709
Violators	9	—	6	—
<b>TOTAL</b>	<b>3018</b>	<b>10108</b>	<b>1125</b>	<b>3857</b>
PERSONS	HOV Lane		Mixed Flow Lanes	
	HOV Lane		Mixed Flow Lanes	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	44	4	15	3
Buses	140	315	70	140
Carpools <sup>(1)</sup>	5604	732	2071	304
Vanpools	130	0	60	0
Hybrid/Single Occ. <sup>(2)</sup>	192	9753	78	3709
Violators	9	—	6	—
<b>TOTAL</b>	<b>6119</b>	<b>10804</b>	<b>2300</b>	<b>4156</b>
RATES	HOV Lane		Mixed Flow Lanes	
	HOV Lane		Mixed Flow Lanes	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.0	persons/veh	2.0	persons/veh
Mixed Flow occupancy rate	1.1	persons/veh	1.1	persons/veh
Overall occupancy (incl. buses)	1.3	persons/veh	1.3	persons/veh
Violation rate <sup>(3)</sup> (HOV Lane)	0.3	%	0.5	%

- NOTES:** (1) Two or more occupants per vehicle.  
(2) Hybrid HOV Lane only/Single Occupancy mixed flow lanes only.  
(3) Violation rate =  $\frac{\text{no. of violators in HOV lane}}{\text{Total no. of vehicles in HOV lane}} \times 100\%$   
(4) HOV lane in operation from 5:00 to 9:00 A.M.  
(5) Observations conducted 11/19/09 at the Woodside Road I/C

# SAN MATEO-101

SM/SCL County Line to Whipple Avenue

# Northbound - P.M.

Typical data for 2009 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup> 3:00 - 6:00 PM		PEAK HOUR 4:00 - 5:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	72	41	24	13
Buses	19	14	11	7
Carpools <sup>(1)</sup>	2004	800	702	321
Vanpools	8	6	3	0
Hybrid/Single Occ. <sup>(2)</sup>	147	11355	42	3961
Violators	12	—	3	—
<b>TOTAL</b>	2262	12216	785	4302
PERSONS	HOV Lane		Mixed Flow Lanes	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	72	41	24	13
Buses	665	490	385	245
Carpools <sup>(1)</sup>	4190	1780	1477	715
Vanpools	80	60	30	0
Hybrid/Single Occ. <sup>(2)</sup>	147	11355	42	3961
Violators	12	—	3	—
<b>TOTAL</b>	5166	13726	1961	4934
RATES	HOV Lane		Mixed Flow Lanes	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.3 persons/veh		2.5 persons/veh	
Mixed Flow occupancy rate	1.1 persons/veh		1.1 persons/veh	
Overall occupancy (incl. buses)	1.3 persons/veh		1.4 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	0.5 %		0.4 %	

**NOTES:** <sup>(1)</sup> Two or more occupants per vehicle.

<sup>(2)</sup> Hybrid HOV Lane only/Single occupancy mixed flow lanes only.

<sup>(3)</sup> Violation rate =  $\frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$

<sup>(4)</sup> HOV lane in operation from 3:00 to 7:00 P.M.

<sup>(5)</sup> Observations conducted 05/14/09 at the Woodside Road I/C

# SAN MATEO-101

Whipple Avenue to the SM/SCL County Line

## Violation History

Southbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
<b>A.M. PEAK</b>	Thu May 14, 2009	6:00 - 9:00 AM	1547	<b>0.8%</b>
	Tue Apr 15, 2008	6:00 - 9:00 AM	1322	<b>1.4%</b>
	Thu Dec 13, 2007	6:00 - 9:00 AM	1972	<b>0.6%</b>
	Wed May 31, 2006	6:00 - 9:00 AM	1238	<b>0.8%</b>
	Thu Mar 10, 2005	6:00 - 9:00 AM	1177	<b>1.4%</b>
	Wed Dec 15, 2004	7:00 - 9:00 AM	1355	<b>0.1%</b>
	Wed Apr 9, 2003	6:00 - 9:00 AM	1701	<b>0.6%</b>
	Tue Mar 26, 2002	6:00 - 9:00 AM	1549	<b>3.5%</b>
	Thu Mar 22, 2001	6:00 - 9:00 AM	1746	<b>2.2%</b>
	Tue Apr 25, 2000	6:00 - 9:00 AM	1849	<b>7.0%</b>
	Thu Dec 2, 1999	6:45 - 9:00 AM	1915	<b>5.2%</b>
<b>P.M. PEAK</b>	Thu Oct 22, 2009	3:00 - 6:00 PM	2177	<b>8.5%</b>
	Thu Oct 2, 2008	3:00 - 6:00 PM	2788	<b>0.8%</b>
	Thu May 24, 2007	3:00 - 6:00 PM	2070	<b>3.8%</b>
	Tue Jun 13, 2006	3:00 - 6:00 PM	1754	<b>0.5%</b>
	Wed Sep 28, 2005	3:00 - 6:00 PM	1568	<b>1.5%</b>
	Tue Oct 26, 2004	3:00 - 6:00 PM	1296	<b>1.5%</b>
	Wed May 14, 2003	3:00 - 6:00 PM	1488	<b>2.5%</b>
	Wed Oct 2, 2002	3:00 - 6:00 PM	1895	<b>3.2%</b>
	Thu Nov 8, 2001	3:00 - 5:30 PM	1685	<b>7.0%</b>
	Thu Oct 12, 2000	3:00 - 6:00 PM	2245	<b>3.3%</b>
	Wed Dec 8, 1999	3:00 - 5:15 PM	1683	<b>0.5%</b>

**NOTES:** (a) Morning period of operation from 5:00 to 9:00 AM.  
(b) Evening period of operation from 3:00 to 7:00 PM.

# SAN MATEO-101

SM/SCL County Line to Whipple Avenue

## Violation History

Northbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
<b>A.M. PEAK</b>	Thu Nov 19, 2009	6:00 - 9:00 AM	3018	<b>0.3%</b>
	Tue Mar 13, 2007	6:00 - 9:00 AM	2478	<b>0.8%</b>
	Thu Oct 26, 2006	6:00 - 9:00 AM	1573	<b>0.2%</b>
	Wed Apr 6, 2005	6:00 - 9:00 AM	1409	<b>0.5%</b>
	Wed Dec 1, 2004	6:00 - 9:00 AM	1337	<b>0.7%</b>
	Thu Oct 9, 2003	7:00 - 9:00 AM	1031	<b>1.5%</b>
	Tue Apr 9, 2002	6:45 - 9:00 AM	865	<b>5.7%</b>
	Wed Oct 31, 2001	6:00 - 9:00 AM	1662	<b>2.1%</b>
	Thu Oct 12, 2000	6:00 - 9:00 AM	2964	<b>4.7%</b>
	Thu Apr 29, 1999	6:00 - 9:00 AM	2088	<b>0.5%</b>
<b>P.M. PEAK</b>	Thu May 14, 2009	3:00 - 6:00 PM	2262	<b>0.5%</b>
	Thu Nov 29, 2007	3:00 - 6:00 PM	2508	<b>7.3%</b>
	Thu Jun 1, 2006	3:00 - 6:00 PM	2343	<b>0.0%</b>
	Tue Oct 4, 2005	3:00 - 6:00 PM	2025	<b>0.4%</b>
	Thu Oct 28, 2004	3:00 - 6:00 PM	1929	<b>0.1%</b>
	Tue Apr 8, 2003	3:00 - 6:00 PM	2327	<b>2.0%</b>
	Wed Jun 5, 2002	3:00 - 6:00 PM	1969	<b>3.4%</b>
	Wed Nov 14, 2001	3:00 - 5:30 PM	1675	<b>0.2%</b>
	Tue Sep 12, 2000	3:00 - 6:00 PM	2329	<b>14.3%</b>
	Tue Oct 26, 1999	3:00 - 6:00 PM	2987	<b>8.5%</b>

**NOTES:** (a) Morning period of operation from 5:00 to 9:00 AM.  
(b) Evening period of operation from 3:00 to 7:00 PM.

# SOLANO-80

Carquinez Bridge Toll Plaza

## Eastbound - P.M.

Typical data for 2009

(6)

### PEAK PERIOD <sup>(5)</sup>

3:00 to 7:00 P.M.

### PEAK HOUR

5:00 to 6:00 P.M.

VEHICLES	PEAK PERIOD <sup>(5)</sup>		PEAK HOUR	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	181	—	48	—
Buses <sup>(4)</sup>	18	—	4	—
Carpools <sup>(1)</sup>	1888	—	533	—
2 - seaters <sup>(2)</sup>	597	—	148	—
Hybrid	203	—	58	—
Vanpools	131	—	39	—
Violators (HOV only)	447	—	99	—
<b>TOTAL</b>	<b>3465</b>	<b>15126 <sup>(7)</sup></b>	<b>929</b>	<b>3971</b>

PERSONS	PEAK PERIOD <sup>(5)</sup>		PEAK HOUR	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	181	—	48	—
Buses <sup>(4)</sup>	630	—	140	—
Carpools <sup>(1)</sup>	5853	—	1652	—
2 - seaters <sup>(2)</sup>	1194	—	296	—
Hybrid	203	—	58	—
Vanpools	1310	—	390	—
Violators (HOV only)	732	—	167	—
<b>TOTAL</b>	<b>10103</b>	<b>16639 <sup>(7)</sup></b>	<b>2751</b>	<b>4368</b>

RATES	PEAK PERIOD <sup>(5)</sup>		PEAK HOUR	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.9 persons/veh		3.0 persons/veh	
Mixed Flow Occupancy Rate <sup>(7)</sup>	1.1 persons/veh		1.1 persons/veh	
Violation rate (HOV Lane) <sup>(3)</sup>	12.9 %		10.7 %	

**NOTES:** (1) 3 or more persons per vehicle.

(2) 2 - seater vehicles with 2 persons.

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane}}{\text{Total no. of vehicles in HOV lane}} \times 100\%$

(4) Assumed PM bus occupancy = 35 persons/vehicle.

(5) HOV lane in operation from 3:00 to 7:00 P.M.

(6) Observations conducted 3/18/09 at the Carquinez Bridge Toll Plaza.

(7) Data from Toll Plaza vehicle Registration Report.



# SOLANO-80

Carquinez Bridge Toll Plaza

## Violation History

Eastbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
<b>A.M. PEAK</b>	Year 2009	-	-	-
	Year 2008	-	-	-
	Year 2007	-	-	-
	Year 2006	-	-	-
	Year 2005	-	-	-
	Year 2004	-	-	-
	Year 2003	-	-	-
	Thu Nov 14, 2002	5:00 - 10:00 AM	706	10.1%
	Thu May 31, 2001	5:00 - 10:00 AM	804	24.5%
	Thu Nov 16, 2000	5:00 - 10:00 AM	773	34.4%
	Wed Mar 10, 1999	6:00 - 10:00 AM	664	26.2%
<b>P.M. PEAK</b>	Wed Mar 18, 2009	3:00 - 7:00 PM	3465	12.9%
	Wed Apr 2, 2008	3:00 - 7:00 PM	3459	13.4%
	Tue Sep 18, 2007	3:00 - 7:00 PM	3452	10.1%
	Thu Sep 14, 2006	3:00 - 7:00 PM	3285	11.0%
	Wed Sep 14, 2005	3:00 - 7:00 PM	3523	6.0%
	Wed Oct 13, 2004	3:00 - 7:00 PM	3342	9.4%
	Thu May 15, 2003	3:00 - 7:00 PM	3360	8.8%
	Thu Sep 26, 2002	3:00 - 7:00 PM	3429	9.5%
	Thu Mar 29, 2001	3:00 - 7:00 PM	3493	1.2%
	Tue Oct 17, 2000	3:00 - 7:00 PM	3373	9.5%
	Wed Sep 29, 1999	3:00 - 7:00 PM	2945	12.9%

**NOTES:** (a) Morning period of operation from 5:00 to 10:00 AM  
(b) Evening period of operation from 3:00 to 7:00 PM.  
(c) Data was not collected in 2009 for off-peak direction

# SONOMA-101

Windsor River Road to Wilfred Avenue

## Southbound - A.M.

Typical data for 2009 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup>		PEAK HOUR	
	7:00 - 9:00 AM		8:00 - 9:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	44	7	17	1
Buses	5	26	4	18
Carpools <sup>(1)</sup>	583	213	304	97
Vanpools	1	5	0	5
Hybrid/Single Occ. <sup>(2)</sup>	24	6538	8	3391
Violators	30	—	14	—
<b>TOTAL</b>	<b>687</b>	<b>6789</b>	<b>347</b>	<b>3512</b>
PERSONS	HOV Lane		HOV Lane	
	Mixed Flow Lanes		Mixed Flow Lanes	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	44	7	17	1
Buses	175	910	140	630
Carpools <sup>(1)</sup>	1189	470	623	215
Vanpools	10	50	0	50
Hybrid/Single Occ. <sup>(2)</sup>	24	6538	8	3391
Violators	30	—	14	—
<b>TOTAL</b>	<b>1472</b>	<b>7975</b>	<b>802</b>	<b>4287</b>
RATES				
HOV Lane occupancy rate	2.1 persons/veh		2.3 persons/veh	
Mixed Flow occupancy rate	1.2 persons/veh		1.2 persons/veh	
Overall occupancy (incl. buses)	1.3 persons/veh		1.3 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	4.4 %		4.0 %	

**NOTES:** (1) Two or more occupants per vehicle.

(2) Hybrid HOV Lane only/Single Occupancy mixed flow lanes only.

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane}}{\text{Total no. of vehicles in HOV lane}} \times 100\%$

(4) HOV lane in operation from 7:00 to 9:00 A.M.

(5) Observations conducted 05/07/09 at South of Hearn Avenue Interchange.

# SONOMA-101

Windsor River Road to Wilfred Avenue

## Southbound - P.M.

Typical data for 2009 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup> 3:00 - 6:30 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	51	25	21	9
Buses	15	9	1	0
Carpools <sup>(1)</sup>	2406	1084	780	242
Vanpools	8	6	2	2
Hybrid/Single Occ. <sup>(2)</sup>	58	10451	15	3277
Violators	25	—	2	—
<b>TOTAL</b>	<b>2563</b>	<b>11575</b>	<b>821</b>	<b>3530</b>

PERSONS	PEAK PERIOD <sup>(4)</sup> 3:00 - 6:30 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	51	25	21	9
Buses	525	315	35	0
Carpools <sup>(1)</sup>	4948	2345	1608	521
Vanpools	80	60	20	20
Hybrid/Single Occ. <sup>(2)</sup>	58	10451	15	3277
Violators	25	—	2	—
<b>TOTAL</b>	<b>5687</b>	<b>13196</b>	<b>1701</b>	<b>3827</b>

RATES	PEAK PERIOD <sup>(4)</sup> 3:00 - 6:30 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.2 persons/veh		2.1 persons/veh	
Mixed Flow occupancy rate	1.1 persons/veh		1.1 persons/veh	
Overall occupancy (incl. buses)	1.3 persons/veh		1.3 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	1.0 %		0.2 %	

**NOTES:** (1) Two or more occupants per vehicle.

(2) Hybrid HOV Lane only/Single Occupancy mixed flow lanes only.

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane}}{\text{Total no. of vehicles in HOV lane}} \times 100\%$

(4) HOV lane in operation from 3:00 to 6:30 P.M.

(5) Observations conducted 04/29/09 at South of Hearn Avenue Interchange.

# SONOMA-101

Wilfred Avenue to Windsor River Road

## Northbound - A.M.

Typical data for 2009 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup> 7:00 - 9:00 AM		PEAK HOUR 8:00 - 9:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	30	17	12	7
Buses	12	15	7	4
Carpools <sup>(1)</sup>	604	244	323	114
Vanpools	5	10	3	5
Hybrid/Single Occ. <sup>(2)</sup>	23	5716	13	3094
Violators	28	—	11	—
<b>TOTAL</b>	<b>702</b>	<b>6002</b>	<b>369</b>	<b>3224</b>

PERSONS	PEAK PERIOD <sup>(4)</sup> 7:00 - 9:00 AM		PEAK HOUR 8:00 - 9:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	30	17	12	7
Buses	420	525	245	140
Carpools <sup>(1)</sup>	1237	509	664	232
Vanpools	50	100	30	50
Hybrid/Single Occ. <sup>(2)</sup>	23	5716	13	3094
Violators	28	—	11	—
<b>TOTAL</b>	<b>1788</b>	<b>6867</b>	<b>975</b>	<b>3523</b>

RATES	PEAK PERIOD <sup>(4)</sup> 7:00 - 9:00 AM		PEAK HOUR 8:00 - 9:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.5 persons/veh		2.6 persons/veh	
Mixed Flow occupancy rate	1.1 persons/veh		1.1 persons/veh	
Overall occupancy (incl. buses)	1.3 persons/veh		1.3 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	4.0 %		3.0 %	

- NOTES:** (1) Two or more occupants per vehicle.  
 (2) Hybrid HOV Lane only/Singe Occupancy mixed flow lanes only.  
 (3) Violation rate =  $\frac{\text{no. of violators in HOV lane}}{\text{Total no. of vehicles in HOV lane}} \times 100\%$   
 (4) HOV lane in operation from 7:00 to 9:00 A.M.  
 (5) Observations conducted 05/28/09 at North of Todd Road Interchange.

# SONOMA-101

Wilfred Avenue to Windsor River Road

## Northbound - P.M.

Typical data for 2009 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup>		PEAK HOUR	
	3:00 - 6:30 PM		5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	100	28	41	9
Buses	16	13	8	1
Carpools <sup>(1)</sup>	1800	1006	618	244
Vanpools	11	4	6	1
Hybrid/Single Occ. <sup>(2)</sup>	37	9926	13	3046
Violators	24	—	2	—
<b>TOTAL</b>	1988	10977	688	3301
PERSONS	HOV Lane		HOV Lane	
	Mixed Flow Lanes		Mixed Flow Lanes	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	100	28	41	9
Buses	560	455	280	35
Carpools <sup>(1)</sup>	3699	2183	1268	524
Vanpools	110	40	60	10
Hybrid/Single Occ. <sup>(2)</sup>	37	9926	13	3046
Violators	24	—	2	—
<b>TOTAL</b>	4530	12632	1664	3624
RATES	HOV Lane		HOV Lane	
	Mixed Flow Lanes		Mixed Flow Lanes	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.3 persons/veh		2.4 persons/veh	
Mixed Flow occupancy rate	1.2 persons/veh		1.1 persons/veh	
Overall occupancy (incl. buses)	1.3 persons/veh		1.3 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	1.2 %		0.3 %	

**NOTES:** (1) Two or more occupants per vehicle.

(2) Hybrid HOV Lane only/Single Occupancy mixed flow lanes only.

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane}}{\text{Total no. of vehicles in HOV lane}} \times 100\%$

(4) HOV lane in operation from 3:00 to 6:30 P.M.

(5) Observations conducted 03/26/09 at North of Todd Road Interchange.

# SONOMA-101

Windsor River Road to Wilfred Avenue

## Violation History

Southbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
<b>A.M. PEAK</b>	Thu May 7, 2009	7:00 - 9:00 AM	687	4.4%
	Tue Apr 29, 2008	7:00 - 9:00 AM	699	4.1%
	Thu Mar 22, 2007	7:00 - 9:00 AM	781	4.4%
	Wed Oct 18, 2006	7:00 - 9:00 AM	705	4.7%
	Thu Mar 10, 2005	7:00 - 9:00 AM	1023	3.8%
	Thu Oct 7, 2004	7:00 - 9:00 AM	772	2.2%
	Thu Apr 10, 2003	6:30 - 9:30 AM	997	4.8%
	Tue Dec 10, 2002	6:30 - 9:30 AM	951	5.8%
<b>P.M. PEAK</b>	Wed Apr 29, 2009	3:00 - 6:30 PM	2563	1.0%
	Wed Apr 16, 2008	3:00 - 6:30 PM	2276	2.2%
	Thu Sep 27, 2007	3:00 - 6:30 PM	2223	2.7%
	Thu Apr 27, 2006	3:00 - 6:30 PM	2277	3.6%
	Wed Mar 9, 2005	3:00 - 6:30 PM	1967	3.9%
	Thu Oct 28, 2004	3:00 - 6:30 PM	2809	1.2%
	Thu Apr 10, 2003	3:00 - 7:00 PM	2224	2.7%
	Tue Dec 10, 2002	3:00 - 7:00 PM	1645	2.9%

**NOTES:** (a) Morning period of operation from 7:00 to 9:00 AM.

(b) Evening period of operation from 3:00 to 6:30 PM.

# SONOMA-101

Wilfred Avenue to Windsor River Road

## Violation History

Northbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
<b>A.M. PEAK</b>	Thu May 28, 2009	7:00 - 9:00 AM	702	4.0%
	Thu Oct 16, 2008	7:00 - 9:00 AM	790	3.3%
	Wed Mar 28, 2007	7:00 - 9:00 AM	918	3.5%
	Wed Oct 25, 2006	7:00 - 9:00 AM	807	3.5%
	Tue Mar 15, 2005	7:00 - 9:00 AM	836	4.9%
	Thu Oct 14, 2004	7:00 - 9:00 AM	666	4.4%
	Wed Apr 9, 2003	6:30 - 9:30 AM	839	6.0%
	Thu Dec 5, 2002	6:30 - 9:30 AM	696	6.6%
<b>P.M. PEAK</b>	Thu Mar 26, 2009	3:00 - 6:30 PM	1989	1.2%
	Thu Oct 16, 2008	3:00 - 6:30 PM	1766	1.0%
	Tue Mar 27, 2007	3:00 - 6:30 PM	1982	1.4%
	Thu Apr 13, 2006	3:00 - 6:30 PM	1907	3.7%
	Thu Oct 6, 2005	3:00 - 6:30 PM	2263	2.0%
	Thu Oct 21, 2004	3:00 - 6:30 PM	1945	2.2%
	Thu Oct 16, 2003	3:00 - 7:00 PM	2172	3.2%
	Thu Dec 5, 2002	3:00 - 7:00 PM	2145	1.9%

**NOTES:** (a) Morning period of operation from 7:00 to 9:00 AM.  
(b) Evening period of operation from 3:00 to 6:30 PM.

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# **HOV TOLL GATES**

## **VOLUME/PERSON DATA**

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# HOV TOLL GATE

## Richmond-San Rafael Bridge Toll Plaza

### CONTRA COSTA - 580

## Westbound - A.M.

Typical data for 2009 <sup>(3)</sup>

	PEAK PERIOD <sup>(2)</sup> 6:00 - 10:00 AM	PEAK HOUR 7:00 - 8:00 AM
<b>VEHICLES</b>		
Motorcycles	90	28
Buses	18	6
Vanpools	22	9
Carpools <sup>(1)</sup>	756	239
<b>Total HOVs</b>	<b>886</b>	<b>282</b>
1 Occupancy	1257	365
2 Occupancy	270	88
<b>TOTAL</b>	<b>2413</b>	<b>735</b>
<b>PERSONS</b>		
Motorcycles	90	28
Buses	630	210
Vanpools	220	90
Carpools <sup>(1)</sup>	2065	944
<b>Total HOVs</b>	<b>3005</b>	<b>1272</b>
1 Occupancy	1257	365
2 Occupancy	540	176
<b>TOTAL</b>	<b>4802</b>	<b>1813</b>
<b>RATES</b>		
HOV Occupancy Rate	3.4 persons/veh	4.5 persons/veh
Mixed Flow Occupancy Rate	1.2 persons/veh	1.2 persons/veh
Overall Occupancy (incl. buses)	2.0 persons/veh	2.5 persons/veh

**NOTES:** (1) 3 or more persons per vehicle & 2 - seater vehicles with 2 persons.

(2) HOV operation hours from 5:00 to 10:00 AM and 3:00 to 6:00 PM.

(3) Observations conducted 4/21/09 at Toll Plaza.

# HOV TOLL GATE

## Richmond-San Rafael Bridge Toll Plaza

### CONTRA COSTA - 580

## Westbound - P.M.

Typical data for 2009 <sup>(3)</sup>

	PEAK PERIOD <sup>(2)</sup> 3:00 - 6:00 PM	PEAK HOUR 4:00 - 5:00 PM
<b>VEHICLES</b>		
Motorcycles	40	16
Buses	6	2
Vanpools	14	5
Carpools <sup>(1)</sup>	423	160
<b>Total HOVs</b>	<b>483</b>	<b>183</b>
1 Occupancy	730	256
2 Occupancy	188	63
<b>TOTAL</b>	<b>1401</b>	<b>502</b>
<b>PERSONS</b>		
Motorcycles	40	16
Buses	210	70
Vanpools	140	50
Carpools <sup>(1)</sup>	1219	453
<b>Total HOVs</b>	<b>1609</b>	<b>589</b>
1 Occupancy	730	256
2 Occupancy	376	126
<b>TOTAL</b>	<b>2715</b>	<b>971</b>
<b>RATES</b>		
HOV Occupancy Rate	3.3 persons/veh	3.2 persons/veh
Mixed Flow Occupancy Rate	1.2 persons/veh	1.2 persons/veh
Overall Occupancy (incl. buses)	1.9 persons/veh	1.9 persons/veh

**NOTES:** (1) 3 or more persons per vehicle & 2 - seater vehicles with 2 persons.

(2) HOV operation hours from 5:00 to 10:00 AM and 3:00 to 6:00 PM.

(3) Observations conducted 4/2/09 at Toll Plaza.

# HOV TOLL GATE

Antioch Bridge Toll Plaza

CONTRA COSTA -160

Northbound A.M.

Typical data for 2009<sup>(3)</sup>

## PEAK PERIOD<sup>(2)</sup>

6:00 to 9:00 A.M.

## PEAK HOUR

6:00 to 7:00 A.M.

### VEHICLES

Motorcycles	5	0
Buses	0	0
Vanpools	0	0
Carpools <sup>(1)</sup>	17	1
Total HOV	22	1
1 Occupancy	959	396
2 Occupancy	98	1
<b>TOTAL</b>	1079	398

### PERSONS

Motorcycles	5	0
Buses	0	0
Vanpools	0	0
Carpools <sup>(1)</sup>	53	3
Total HOV	58	3
1 Occupancy	959	396
2 Occupancy	196	2
<b>TOTAL</b>	1213	401

### RATES

HOV Occupancy Rate	2.6 persons/veh	3.1 persons/veh
Overall occupancy (incl. buses)	1.1 persons/veh	1.0 persons/veh

- NOTES:** (1) 3 or more occupants per vehicle & 2-seater vehicles w/2 occupants.  
(2) HOV operation hours 5:00 to 10:00 AM.  
(3) Observations conducted 3/18/09 at Toll Plaza

# HOV TOLL GATE

Antioch Bridge Toll Plaza

CONTRA COSTA -160

Northbound P.M.

Typical data for 2009<sup>(3)</sup>

## PEAK PERIOD<sup>(2)</sup>

3:00 to 6:00 P.M.

## PEAK HOUR

4:00 to 5:00 P.M.

### VEHICLES

Motorcycles	20	5
Buses	1	0
Vanpools	2	2
Carpools <sup>(1)</sup>	29	13
Total HOV	52	20
1 Occupancy	1209	403
2 Occupancy	269	93
<b>TOTAL</b>	1530	516

### PERSONS

Motorcycles	20	5
Buses	35	0
Vanpools	20	20
Carpools <sup>(1)</sup>	90	40
Total HOV	165	65
1 Occupancy	1209	403
2 Occupancy	538	186
<b>TOTAL</b>	1912	654

### RATES

HOV Occupancy Rate	3.2 persons/veh	3.3 persons/veh
Overall occupancy (incl. buses)	1.2 persons/veh	1.3 persons/veh

- NOTES:** (1) 3 or more occupants per vehicle & 2-seater vehicles w/2 occupants.  
(2) HOV operation hours 3:00 to 7:00 PM.  
(3) Observations conducted 4/23/09 at Toll Plaza